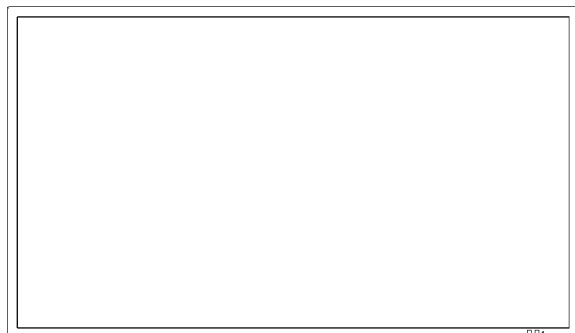


Service Manual

FULL HD LCD Display

Model No. **TH-42LF25W**

TH-47LF25W



WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE


There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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1 Safety Precautions

1.1. General Guidelines

1. When conducting repairs and servicing, do not attempt to modify the equipment, its parts or its materials.
2. When wiring units (with cables, flexible cables or lead wires) are supplied as repair parts and only one wire or some of the wires have been broken or disconnected, do not attempt to repair or re-wire the units. Replace the entire wiring unit instead.
3. When conducting repairs and servicing, do not twist the Fasten connectors but plug them straight in or unplug them straight out.
4. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
5. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
6. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.2. Touch-Current Check

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a measuring network for touch currents between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use Leakage Current Tester (Simpson 228 or equivalent) to measure the potential across the measuring network.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reserve the AC plug in the AC outlet and repeat each of the above measure.
6. The potential at any point (TOUCH CURRENT) expressed as voltage U_1 and U_2 , does not exceed the following values:

For a. c.: $U_1 = 35 \text{ V}$ (peak) and $U_2 = 0.35 \text{ V}$ (peak);

For d. c.: $U_1 = 1.0 \text{ V}$,

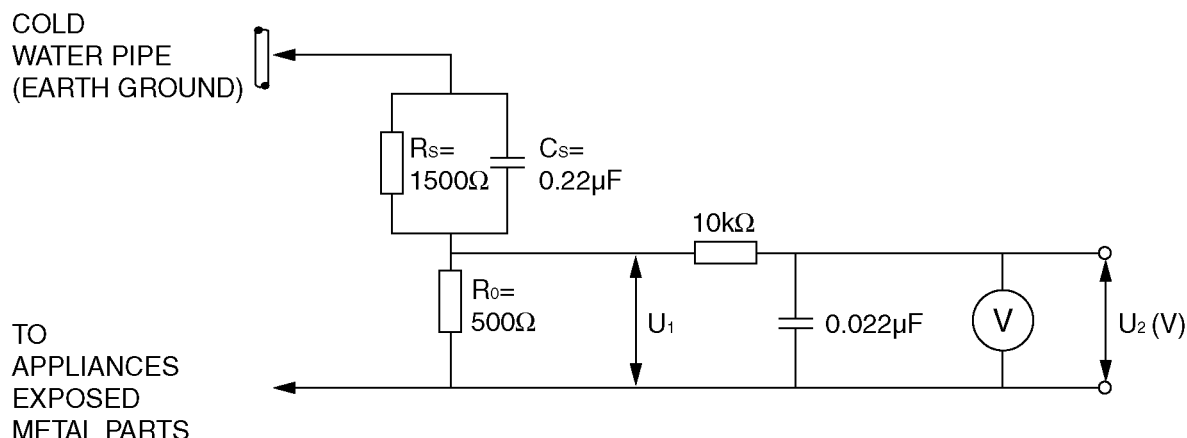
Note:

The limit value of $U_2 = 0.35 \text{ V}$ (peak) for a. c. and $U_1 = 1.0 \text{ V}$ for d. c. correspond to the values 0.7 mA (peak) a. c. and 2.0 mA d. c.

The limit value $U_1 = 35 \text{ V}$ (peak) for a. c. correspond to the value 70 mA (peak) a. c. for frequencies greater than 100 kHz .

7. In case a measurement is out of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

Measuring network for TOUCH CURRENTS



Resistance values in ohms (Ω)

V: Voltmeter or oscilloscope
(r.m.s. or peak reading)

Input resistance: $\geq 1 \text{ M}\Omega$

Input capacitance: $\leq 200 \text{ pF}$

Frequency range: 15 Hz to 1 MHz and d.c. respectively

NOTE - Appropriate measures should be taken to obtain the correct value in case of non-sinusoidal waveforms.

Figure 1

2 Warning

2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor “chip” components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as “anti-static (ESD protected)” can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise ham less motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

2.2. About lead free solder (PbF)

Note: Lead is listed as (Pb) in the periodic table of elements.

In the information below, Pb will refer to Lead solder, and PbF will refer to Lead Free Solder.

The Lead Free Solder used in our manufacturing process and discussed below is (Sn+Ag+Cu).

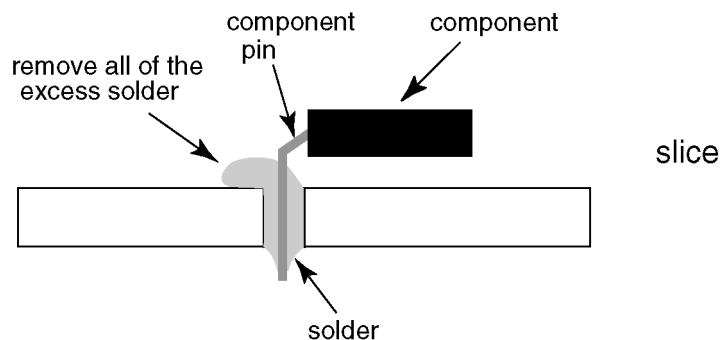
That is Tin (Sn), Silver (Ag) and Copper (Cu) although other types are available.

This model uses Pb Free solder in it's manufacture due to environmental conservation issues. For service and repair work, we'd suggest the use of Pb free solder as well, although Pb solder may be used.

PCBs manufactured using lead free solder will have the PbF within a leaf Symbol **PbF** stamped on the back of PCB.

Caution

- Pb free solder has a higher melting point than standard solder. Typically the melting point is 50 ~ 70 °F (30~40 °C) higher. Please use a high temperature soldering iron and set it to 700 ± 20 °F (370 ± 10 °C).
- Pb free solder will tend to splash when heated too high (about 1100 °F or 600 °C).
If you must use Pb solder, please completely remove all of the Pb free solder on the pins or solder area before applying Pb solder. If this is not practical, be sure to heat the Pb free solder until it melts, before applying Pb solder.
- After applying PbF solder to double layered boards, please check the component side for excess solder which may flow onto the opposite side. (see figure below)



Suggested Pb free solder

There are several kinds of Pb free solder available for purchase. This product uses Sn+Ag+Cu (tin, silver, copper) solder. However, Sn+Cu (tin, copper), Sn+Zn+Bi (tin, zinc, bismuth) solder can also be used.

0.3mm X 100g	0.6mm X 100g	1.0mm X 100g

3 Service Navigation

3.1. Applicable signals

PC signals

*Mark: Applicable input signal

	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	RGB IN (Dot clock (MHz))	PC IN (Dot clock (MHz))	DVI-D IN (Dot clock (MHz))	HDMI1 HDMI2
1	640x400@70Hz	31.46	70.07	* (25.17)	* (25.17)	* (25.17)	
2	640x400@85Hz	37.86	85.08	* (31.5)	* (31.5)	* (31.5)	
3	640x480@60Hz	31.43	59.88	* (25.15)	* (25.15)	* (25.15)	
4	640x480@60Hz	31.47	59.94	* (25.18)	* (25.18)	* (25.18)	*
5	640x480@67Hz	35.00	66.67	* (30.24)	* (30.24)	* (30.24)	
6	640x480@72Hz	37.86	72.81	* (31.5)	* (31.5)	* (31.5)	
7	640x480@75Hz	37.50	75.00	* (31.5)	* (31.5)	* (31.5)	
8	640x480@85Hz	43.27	85.01	* (36.0)	* (36.0)	* (36.0)	
9	720x400@70Hz	31.47	70.08	* (28.32)	* (28.32)	* (28.32)	
10	800x600@55Hz	34.50	55.38	* (35.33)	* (35.33)	* (35.33)	
11	800x600@56Hz	35.16	56.25	* (36.0)	* (36.0)	* (36.0)	
12	800x600@60Hz	37.88	60.32	* (40.0)	* (40.0)	* (40.0)	*
13	800x600@60Hz	38.00	60.51	* (40.13)	* (40.13)	* (40.13)	
14	800x600@72Hz	48.08	72.19	* (50.0)	* (50.0)	* (50.0)	
15	800x600@75Hz	46.88	75.00	* (49.5)	* (49.5)	* (49.5)	
16	800x600@85Hz	53.67	85.06	* (56.25)	* (56.25)	* (56.25)	
17	852x480@60Hz	31.47	59.94	* (33.54)	* (33.54)	* (34.24)	
18	1,024x768@50Hz	39.55	50.00	* (51.89)	* (51.89)	* (51.89)	
19	1,024x768@60Hz	48.36	60.00	* (65.0)	* (65.0)	* (65.0)	*
20	1,024x768@60Hz	48.50	60.02	* (64.99)	* (64.99)	* (65.18)	
21	1,024x768@70Hz	56.48	70.07	* (75.0)	* (75.0)	* (75.0)	
22	1,024x768@75Hz	60.24	74.93	* (80.0)	* (80.0)	* (80.0)	
23	1,024x768@75Hz	60.02	75.03	* (78.75)	* (78.75)	* (78.75)	
24	1,024x768@75Hz	61.01	75.70	* (80.05)	* (80.05)	* (81.0)	
25	1,024x768@85Hz	68.68	85.00	* (94.5)	* (94.5)	* (94.5)	
26	1,024x768@120Hz	97.55	119.99		* (115.5)	* (115.5)	
27	1,066x600@60Hz	37.64	59.94	* (53.0)	* (53.0)	* (53.0)	
28	1,152x864@60Hz	53.70	60.00	* (81.62)	* (81.62)	* (81.62)	
29	1,152x864@75Hz	67.50	75.00	* (108.0)	* (108.0)	* (108.0)	
30	1,152x900@65Hz	61.20	65.20	* (92.0)	* (92.0)	* (92.0)	
31	1,152x900@66Hz	61.85	66.00	* (94.5)	* (94.5)	* (94.5)	
32	1,152x900@75Hz	71.40	75.60	* (105.1)	* (105.1)	* (105.1)	
33	1,280x768@60Hz	47.78	59.87	* (79.50)	* (79.50)	* (79.50)	
34	1,280x800@50Hz	41.20	50.00	* (68.55)	* (68.55)	* (68.55)	
35	1,280x960@60Hz	60.00	60.00	* (108.0)	* (108.0)	* (108.0)	
36	1,280x960@85Hz	85.94	85.00	* (148.5)	* (148.5)	* (148.5)	
37	1,280x1,024@50Hz	52.70	50.00	* (89.38)	* (89.38)	* (89.38)	
38	1,280x1,024@60Hz	63.34	59.98	* (108.18)	* (108.18)	* (108.18)	
39	1,280x1,024@60Hz	63.90	60.00	* (107.35)	* (107.35)	* (107.35)	
40	1,280x1,024@60Hz	63.37	60.01	* (107.5)	* (107.5)	* (107.5)	
41	1,280x1,024@60Hz	63.74	60.02	* (108.1)	* (108.1)	* (108.1)	
42	1,280x1,024@60Hz	63.98	60.02	* (108.0)	* (108.0)	* (108.0)	*
43	1,280x1,024@60Hz	63.79	60.18	* (108.19)	* (108.19)	* (108.19)	
44	1,280x1,024@66Hz	70.66	66.47	* (119.84)	* (119.84)	* (119.84)	
45	1,280x1,024@75Hz	79.98	75.02	* (135.0)	* (135.0)	* (135.0)	
46	1,280x1,024@76Hz	81.13	76.11	* (135.0)	* (135.0)	* (135.0)	
47	1,280x1,024@85Hz	91.15	85.02		* (157.5)	* (157.5)	
48	1,360x768@60Hz	47.71	60.02	* (85.5)	* (85.5)	* (85.5)	
49	1,366x768@50Hz	39.55	50.00	* (69.92)	* (69.92)	* (69.92)	
50	1,366x768@60Hz	48.36	60.00	* (86.71)	* (86.71)	* (87.44)	
51	1,400x1,050@60Hz	65.12	59.91	* (121.38)	* (121.38)	* (122.43)	
52	1,400x1,050@60Hz	65.32	59.98	* (121.75)	* (121.75)	* (121.75)	
53	1,400x1,050@60Hz	65.35	60.12	* (121.81)	* (121.81)	* (121.85)	
54	1,400x1,050@75Hz	82.28	74.87	* (156.0)	* (156.0)	* (156.0)	
55	1,600x1,200@60Hz	75.00	60.00	* (162.0)	* (162.0)	* (162.0)	
56	1,920x1,080@60Hz	67.50	60.00	* (148.5)	* (148.5)	* (148.5)	
57	1,920x1,200@60Hz	74.04	59.95		* (154.0)	* (154.0)	
58	Macintosh13" (640x480)	35.00	66.67	* (30.24)	* (30.24)	* (30.24)	
59	MacintoshLC13" (640x480)	34.97	66.60	* (31.33)	* (31.33)	* (31.33)	
60	Macintosh16" (832x624)	49.72	74.55	* (57.28)	* (57.28)	* (57.28)	
61	Macintosh19" (1,024x768)	60.24	75.08	* (80.0)	* (80.0)	* (80.0)	
62	Macintosh21" (1,152x870)	68.68	75.06	* (100.0)	* (100.0)	* (100.0)	
63	Macintosh II (1,280x1,024)	80.00	75.00	* (134.4)	* (134.4)	* (135.2)	

Component signals

*Mark: Applicable input signal

	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	COMPONENT IN (Dot clock (MHz))	DVI-D IN (Dot clock (MHz))	HDMI1 HDMI2
1	525(480)/60i	15.73	59.94	* (13.5)	* (27.0)	*
2	525(480)/60p	31.47	59.94	* (27.0)	* (27.0)	*
3	625(575)/50i	15.63	50.00	* (13.5)		
4	625(576)/50i	15.63	50.00		* (27.0)	*
5	625(575)/50p	31.25	50.00	* (27.0)		*
6	625(576)/50p	31.25	50.00		* (27.0)	*
7	750(720)/60p	45.00	60.00	* (74.25)	* (74.25)	*
8	750(720)/50p	37.50	50.00	* (74.25)	* (74.25)	*
9	1,125(1,080)/60p	67.50	60.00	* (148.5)*1	* (148.5)	*
10	1,125(1,080)/60i	33.75	60.00	* (74.25)*1	* (74.25)	*
11	1,125(1,080)/50p	56.25	50.00	* (148.5)*1	* (148.5)	*
12	1,125(1,080)/50i	28.13	50.00	* (74.25)*1	* (74.25)	*
13	1,125(1,080)/24sF	27.00	48.00	* (74.25)*2		
14	1,125(1,080)/30p	33.75	30.00	* (74.25)*1	* (74.25)	*
15	1,125(1,080)/25p	28.13	25.00	* (74.25)*1	* (74.25)	*
16	1,125(1,080)/24p	27.00	24.00	* (74.25)*1	* (74.25)	*

*1: Based on SMPTE 274M standard.

*2: Based on SMPTE RP211 standard.


Video signals (VIDEO, S-VIDEO)

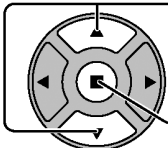
	Signal name	Horizontal frequency(kHz)	Vertical frequency(Hz)
1	NTSC	15.73	59.94
2	PAL	15.63	50.00
3	PAL60	15.73	59.94
4	SECAM	15.63	50.00
5	NTSC 4.43	15.73	59.94
6	PAL N	15.63	50.00
7	PAL M	15.73	59.94

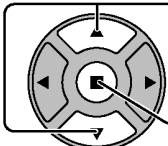
4 Specifications

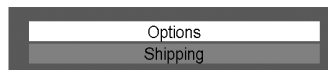
Power Source	220 - 240 V AC, 50/60Hz		
Power Consumption			
Power on	240 W (42 inch)		290 W (47 inch)
Stand-by condition	0.2 W (42 inch)		0.2 W (47 inch)
Power off condition	0.2 W (42 inch)		0.2 W (47 inch)
LCD Display panel	42-inch IPS panel, 16:9 aspect ratio (42 inch)		47-inch IPS panel, 16:9 aspect ratio (47 inch)
Screen size	930 mm (W) × 523 mm (H) × 1,067 mm (diagonal) (42 inch)		
	1,040 mm (W) × 585 mm (H) × 1,193 mm (diagonal) (47 inch)		
(No.of pixels)	2,073,600 (1,920 (W) × 1,080 (H)) (42 inch)		2,073,600 (1,920 (W) × 1,080 (H)) (47 inch)
	[5,760 × 1,080 dots]		[5,760 × 1,080 dots]
Operating condition			
Temperature	0 °C - 40 °C		
Humidity	20 % - 80 %		
Applicable signals			
Colour System	NTSC, PAL, PAL60, SECAM, NTSC 4.43, PAL M, PAL N		
Scanning format	525 (480) / 60i • 60p, 625 (575) / 50i • 50p, 750 (720) / 60p • 50p, 1125 (1080) / 60i • 60p • 50i • 50p • 24p • 25p • 30p • 24sF		
PC signals	VGA, SVGA, XGA, SXGA UXGA (compressed) Horizontal scanning frequency 30 - 110 kHz Vertical scanning frequency 48 - 120 Hz		
Connection terminals			
AV IN	VIDEO	BNC	1.0 Vp-p (75-ohm)
	S-VIDEO	Mini DIN 4PIN	Y: 1.0 Vp-p (75-ohm), C: 0.286 Vp-p (75-ohm)
	AUDIO L-R	RCA Pin jack × 2	0.5 Vrms
HDMI 1/2	TYPE A Connector		
COMPONENT / RGB IN	G/Y	BNC	with sync 1.0 Vp-p (75-ohm)
	B/P _B /C _B	BNC	0.7 Vp-p (75-ohm)
	R/P _R /C _R	BNC	0.7 Vp-p (75-ohm)
	AUDIO L-R	RCA Pin jack × 2	0.5 Vrms
DVI-D IN		DVI-D 24 Pin	Compliance with DVI Revision 1.0
		Content Protection	Compatible with HDCP 1.1
PC IN	AUDIO	Stereo mini jack (M3) × 1	0.5 Vrms, Shared with PC IN
		High-Density Mini D-sub 15 Pin	G with sync 1.0 Vp-p (75-ohm) G without sync 0.7 Vp-p (75-ohm) B:0.7 Vp-p (75-ohm) R:0.7 Vp-p (75-ohm) HD / VD:1.0 - 5.0 Vp-p (high impedance) 0.5 Vrms, Shared with DVI-D IN
	AUDIO	Stereo mini jack (M3) × 1	RS-232C compatible
SERIAL		External Control Terminal D-sub 9 Pin	
Sound			
Speakers	50 mm × 90 mm × 2 pcs		
Audio Output	10 W [5 W + 5 W] (10 % THD)		
Accessories Supplied			
Remote Control Transmitter	N2QAYB000535		
Batteries	R6 Size × 2		
Dimensions (W × H × D)	968 mm × 561 mm × 101 mm (42 inch)		1,079 mm × 624 mm × 101 mm (47 inch)
Mass (weight)	approx. 18.0 kg (42 inch)		approx. 23.0 kg (47 inch)
Note:			

5 Operating Instructions

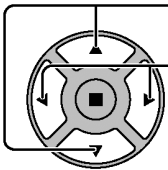
1  Press to display the Setup menu.

2  Press to select "OSD Language".
Press for more than 3 seconds.


3  Press to select "Options".
Press to display the Options menu.

































Options 1/2	
On screen display	On
Initial input	Off
Failover input	Off
Initial VOL level	Off 0
Maximum VOL level	Off 0
Input lock	Off
Button lock	Off
Remocon User level	Off

4  Press to select your preferred menu.
Press to adjust the menu.

Options 2/2	
Off-timer function	Enable
Initial Power Mode	Normal
Power On Screen Delay	Off
Clock Display	Off
Power On Message (No activity power off)	On



5  Press to exit from Options menu.

Item	Adjustments
On screen display	On: Displays all the following on screen. <ul style="list-style-type: none"> Power on display Input signal switch display No signal display Mute and the remaining time of off-timer after  was pressed. Off: Hides all the items above from view.
Initial input	Adjusts the input signal when the unit is turned on. Off ↔ VIDEO ↔ Component/RGB ↔ PC ↔ DVI ↔ HDMI1 ↔ HDMI2 ↔ Off Notes: <ul style="list-style-type: none"> Only the adjusted signal is displayed. This menu is available only when "Input lock" is "Off".
Failover input	When there is no signal, the specified input signal is automatically switched to. Off ↔ VIDEO ↔ Component/RGB ↔ PC ↔ DVI ↔ HDMI1 ↔ HDMI2 ↔ Off Notes: <ul style="list-style-type: none"> When other than "Off" is set, "Input lock" will be grayed out and cannot be set. When "Input lock" is set to other than "Off", this setting will be grayed out and cannot be set.
Initial VOL level	Press   button to adjust the volume when the unit is turned on. Off ↔ On Off: Sets normal volume. On: Sets your preferred volume. Notes: <ul style="list-style-type: none"> When "Maximum VOL level" is "On", the volume can only be adjusted between 0 and your maximum range. You can hear the changed volume regardless of your volume setting before opening the options menu if you adjust the volume when "Initial VOL level" is "On" and cursor is on the menu.
Maximum VOL level	Press   button to adjust the maximum volume. Off ↔ On Off: Sets auto maximum volume. On: Sets your preferred maximum volume. Notes: <ul style="list-style-type: none"> If the "Maximum VOL level" is set lower than the "Initial VOL level", the "Initial VOL level" automatically becomes the same as the "Maximum VOL level". The volume display can go up to 100 regardless of the settings. You can hear the changed volume regardless of your volume setting before opening the options menu if you adjust the volume when "Maximum VOL level" is "On" and cursor is on the menu.
Input lock	Locks the input switch operation. Off ↔ VIDEO ↔ Component/RGB ↔ PC ↔ DVI ↔ HDMI1 ↔ HDMI2 ↔ Off Notes: <ul style="list-style-type: none"> Only the adjusted signal is displayed. Input switch can be used when this is set to "Off".

Item	Adjustments
Button lock	<p>Off \longleftrightarrow On \longleftrightarrow MENU&ENTER Off: All the buttons on main unit can be used. MENU&ENTER: Locks  and  buttons on main unit. On: Locks all the button on main unit. Sets Button lock with the unit buttons in the following procedure. Off: Press  four times \rightarrow Press  four times \rightarrow Press  four times \rightarrow Press  MENU&ENTER: Press  four times \rightarrow Press  four times \rightarrow Press  four times \rightarrow Press  On: Press  four times \rightarrow Press  four times \rightarrow Press  four times \rightarrow Press </p>
Remocon User level	<p>Off \longleftrightarrow User1 \longleftrightarrow User2 \longleftrightarrow User3 Off: You can use all of the buttons on the remote control. User1: You can only use , , , ,  buttons on the remote control. User2: You can only use  button on the remote control. User3: Locks all the buttons on remote control.</p>
Off-timer function	<p>Enable: Enables the "Off-timer function". Disable: Disables the "Off-timer function". Note: When "Disable" is set, the Off-timer is cancelled.</p>
Initial Power Mode	<p>Normal \longleftrightarrow On \longleftrightarrow Standby Sets the power mode of the unit for when the power recovers from failure or after plugging off and in again. Normal: Power returns in as the same state as before the power interruption. Standby: Power returns in standby mode. (Power Indicator : red/orange) On: Power returns in power On. (Power Indicator : green) Note: When using multiple displays, "Standby" is preferred to be set in order to reduce a power load.</p>
Power On Screen Delay	<p>Off \leftrightarrow 1 \leftrightarrow 2 \leftrightarrow 3.... \leftrightarrow 30 You can set the power-on delay time of the displays to reduce the power load, when you press  to turn on the multiple displays that are set together, for example, on MULTI DISPLAY system. Set each display's setting individually. Off: The display will be turned on at the same time as  is pressed. 1 to 30 (sec.): Set the power-on delay time (second). After pressing , the display will be powered on with time delay depending on this setting. Notes: • During this function is working, the power indicator is blinking green. • This function also works when the power recovers from failure or after plugging off and in again the power cord.</p>
Clock Display	<p>Off: Not display the clock. On: Display the clock. The clock is displayed at the lower left of the screen when  button is pressed.  Note: When "PRESENT TIME Setup" is not set, the clock is not displayed even if "Clock Display" is "On".</p>
Power On Message (No activity power off)	<p>Whether to show/hide No activity power off Precautions at the time of power ON is set. On: The warning precautions are shown at the time of power ON. Off: The warning precautions are not shown at the time of power ON. Note: This setting is enabled only if "No activity power off" is "Enable".</p>

Normalisation

When both main unit buttons and remote control are disabled due to the "Button lock" or "Remocon User level" adjustments, set all the values "Off" so that all the buttons are enabled again.

Press the  button on main unit together with  button on the remote control and hold for more than 5 seconds. The "Shipping" menu is displayed and the lock is released when it disappears.

6 Service Mode

6.1. Service Menu Function (1)

Service Menu Display Method

There are 2 display methods.

Method 1

While pressing the "Volume -" button on the unit, press the RECALL button on the remote control 3 times.
(If the interval when pressing the RECALL button exceeds 1 second, then it is disabled.)

Method 2

- 1) Press the OFF TIMER button and then set the off timer.
- 2) Press the volume button and then set the volume to "0."
- 3) While the volume bar is being displayed, press and hold the screen display button for 3 seconds.

The service information is displayed.

Internal Temperature

The internal temperature of the product is displayed.

Power Error Information

- The number of times that a power error has occurred is displayed.
- If a power error is detected, the settings switch to stand-by status.
- If the power is turned on with the remote control and the power error is detected 3 consecutive times, as a consequence, power on cannot be performed with remote control.
- The power button on the monitor unit can be used for power on/off.
- When the power on cannot be performed with the remote control, if the AC cord is disconnected, it resets this status.

Panel Used Time

The elapsed time the LCD panel is used is displayed.

Temperature Error

- The number of times that a temperature error has occurred is displayed.
- If a temperature error is detected, the settings switch to stand-by status.
- Recovery from stand-by status can be performed with the power button on the remote control.

Digital Power Management

The power management function can be set by using the operations on the DVI input screen.

Press and select with the buttons ▲/▼, and setting can be performed by pressing the buttons ◀/▶.

Off: The power management function does not work on the DVI input screen

On: The power management function works on the DVI input screen

Caution:

When setting to on, the energy star and DPMS standard cannot be achieved because the power consumption during stand-by status increases.

Panel test

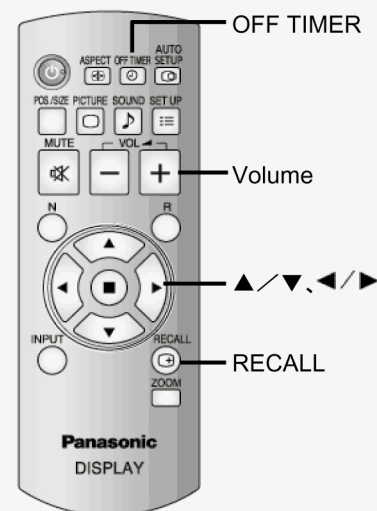
Start can be performed with the auto display mode on the LCD panel.

Press and select with the buttons ▲/▼, and if "On" is selected by pressing the buttons ◀/▶:

- The auto display mode starts.
- When the auto display mode is terminated, the power is turned off with power button on the remote control or the monitor unit.
- When the power is turned off, the panel test returns to "Off."

Service Menu

Service	
Internal Temperature	35°C
Power Error Information	0
Panel Used Time	0 Day 0 Hour
Temperature Error	0
Digital Power Management	Off
Panel test	Off
Software Ver.(Main)	1.000
Software Ver.(Sub)	1.000



6.2. Service Menu Function (2)

Special Menu

The product area can be set.

Special Menu Display Method

- 1) Display the service menu.
- 2) While pressing the monitor unit button "Volume -," press the "■" button on the remote control 3 times.

The "Special" menu is displayed.

(If the interval when pressing the "■" key exceeds 1 second, it is disabled)

Product Area Setting Method

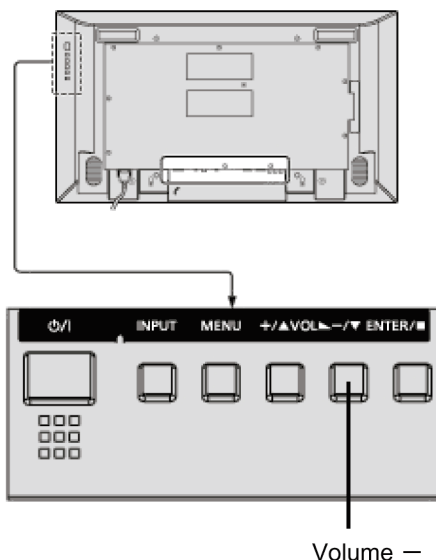
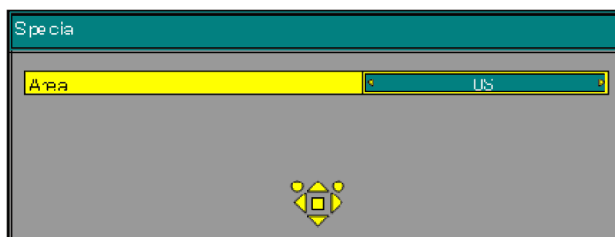
Press the buttons ▲/▼ to select the "Area", and setting can be performed by pressing the buttons ◀/▶.

OFF: English (UK)
 US: ENGLISH (US)
 JP: Japanese
 EU: English (UK)
 ASIA: English (UK)
 CN: Chinese

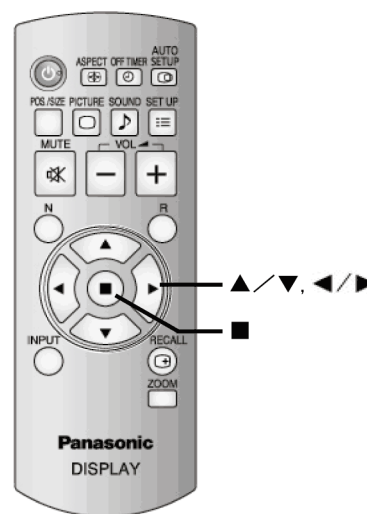
When set to the "US," the "Power Switch Lock" item on the "Options" menu displays, and the default value is set to "Off."

The elapsed time the LCD panel is used is displayed.

Special Menu



Volume -



Start can be performed with the auto display mode on the LCD panel.

6.3. Service Mode Function (1)

White Balance Check

White balance check and adjustments can be performed.

Service Mode Display Method

- 1) Display the service menu.
- 2) Display the special menu.
- 3) Press and hold down the button "■" on the remote control for more than 5 seconds.

The "Service mode" menu is displayed.

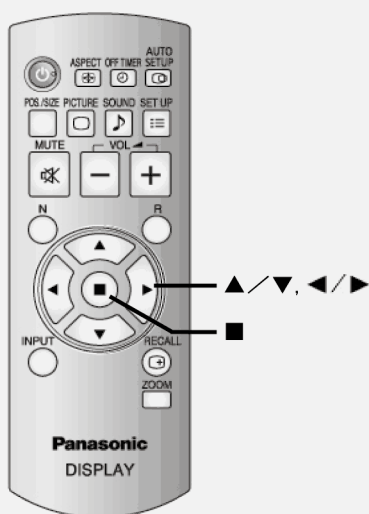
White Balance Adjustment Method

- 1) Press the buttons "▲/▼" on the remote control and select "Source."
- 2) Press the buttons "◀/▶" on the remote control and select "All."
- 3) Press the buttons "▲/▼" on the remote control and select "Properties."
- 4) Press the buttons "◀/▶" on the remote control and select "Red," "Green," or "Blue."
- 5) Press the buttons "▲/▼" on the remote control and select "Data."
- 6) Press the buttons "◀/▶" on the remote control and change the setting value.

White Balance Check Method

By setting the "Source" item to "All," and the "Properties" item to "White," the white balance adjustment value for "Red," "Green," and "Blue" can be referenced.

The elapsed time the LCD panel is used is displayed.



"Service Mode" menu

Service Mode	1.000 (M1)
	1.0.0
Source	All
Properties:	NormalRed
Data:	99

White Balance Adjustment

Service Mode	1.000 (M1)
	1.0.0
Source	All
Properties:	Red
Data:	85

White Balance Adjustment Check

Service Mode	1.000 (M1)	
	1.0.0	
Source	All	
Properties:	White	
Red 85	Green 85	Blue 85

Start can be performed with the auto display mode on the LCD panel.

6.4. Service Mode Function (2)

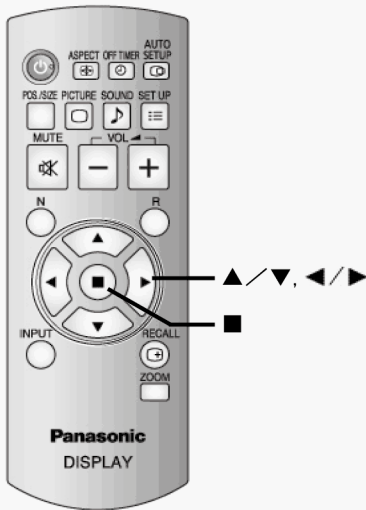
ADC Calibration Adjustment

An adjustment is performed when the LCD panel is replaced.

Adjustment Method

- 1) Display the "Service mode" menu.
- 2) Press the buttons "▲/▼" on the remote control and select "Source."
- 3) Press the buttons "◀/▶" on the remote control and select "All."
- 4) Press the buttons "▲/▼" on the remote control and select "Properties."
- 5) Press the buttons "◀/▶" on the remote control and select "ADC Calibration."
- 6) Press the buttons "▲/▼" on the remote control and select "Data."
- 7) By pressing the buttons "◀/▶" on the remote control, the auto adjustment starts.

Once the ADC Calibration adjustment starts, the item display for the "Data" item changes from "<<< >>>" to "ADC Calibration," and once the ADC Calibration adjustment is terminated, it returns to the "<<< >>>" display. The elapsed time the LCD panel is used is displayed.



Start can be performed with the auto display mode on the LCD panel.

"Service Mode" menu

Service Mode	1.000 (M1)
	1.0.0
Source	All
Properties:	NormalRec
Data	99

ADC Calibration Display

Service Mode	1.000 (M1)
	1.0.0
Source	All
Properties:	ADC Calibration
Data:	Not Yet

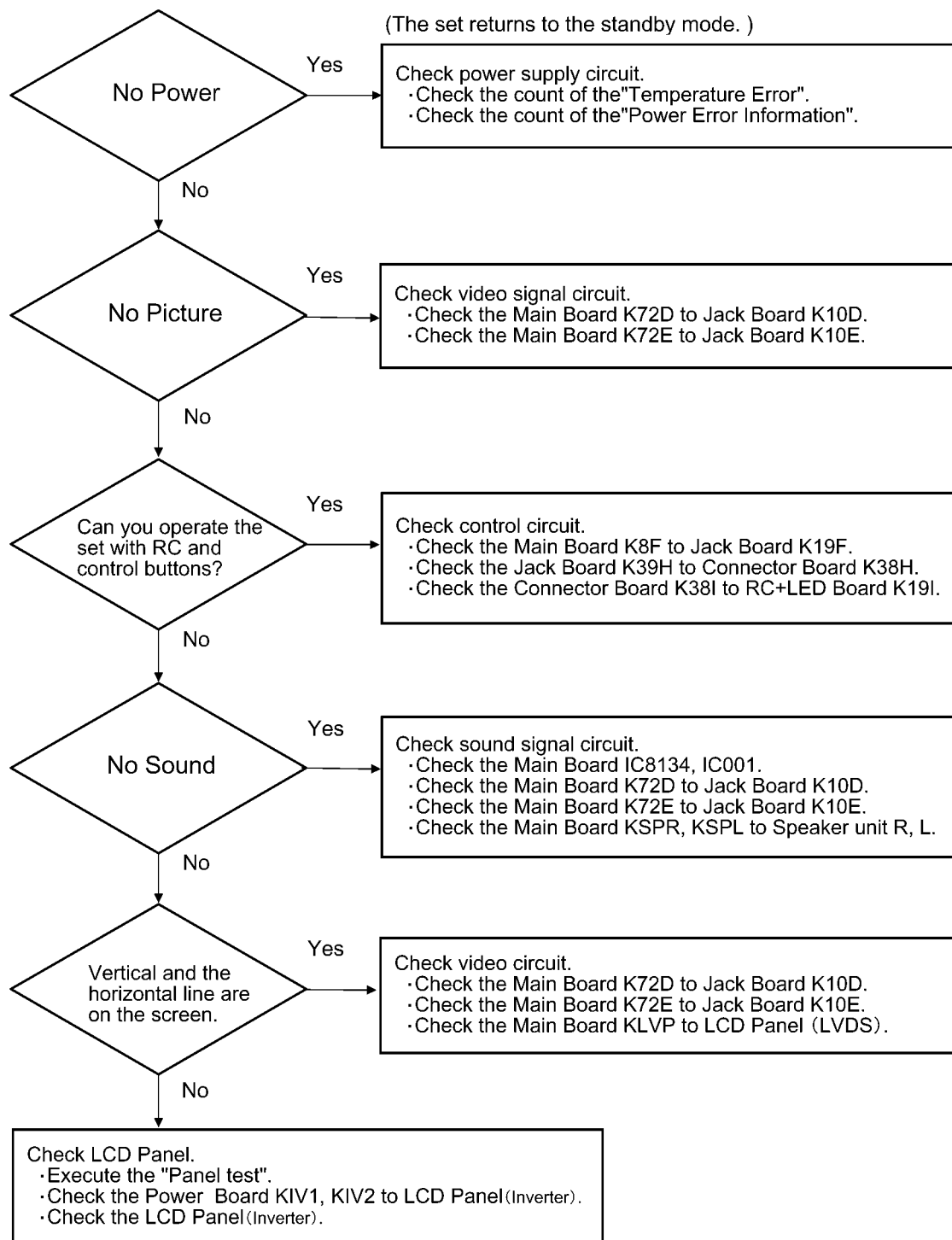
Before ADC Calibration

Service Mode	1.000 (M1)
	1.0.0
Source	All
Properties:	ADC Calibration
Data:	<<< >>>

During ADC Calibration

Service Mode	1.000 (M1)
	1.0.0
Source	All
Properties:	ADC Calibration
Data:	ADC Calibration

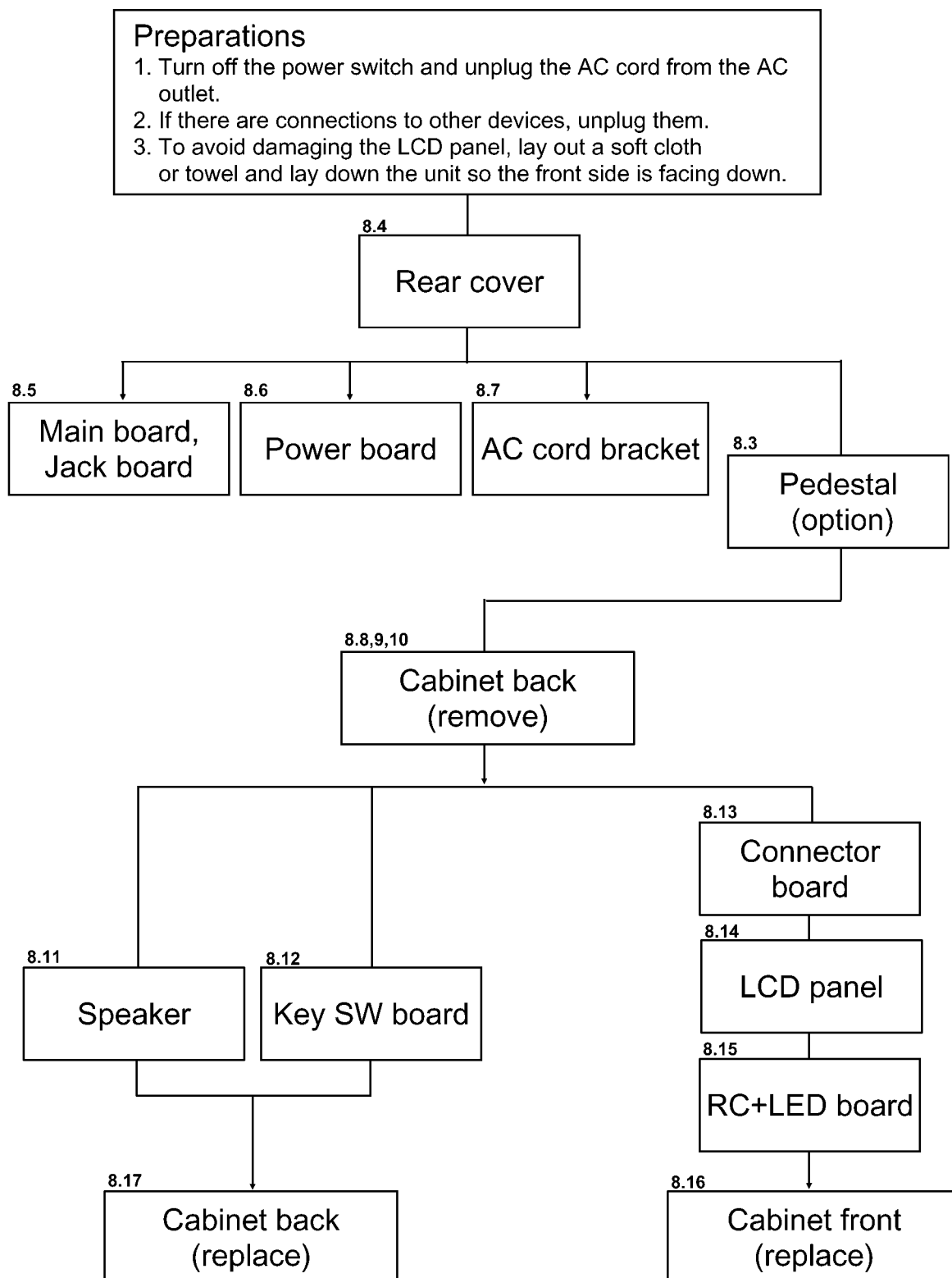
7 Troubleshooting Guide



8 Disassembly and Assembly Instructions

8.1. Flowchart for disassembly

- The following flowchart shows which parts should be removed in order to remove the replacement parts.
- When disassembling, if the flowchart is followed, the procedure for the replacement parts can be performed more efficiently.



8.2. Preparations

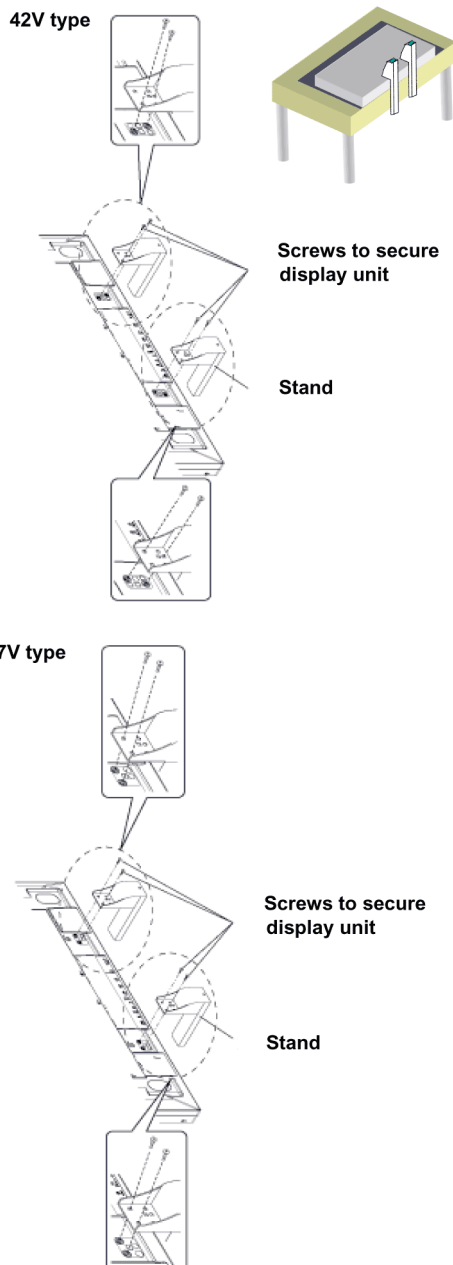
To avoid damaging the LCD panel, lay out a soft cloth or towel and lay down the unit so the front side is facing down.

Precautions when replacing each module

- Always perform the procedure below when replacing each module.
- Be careful not to overtighten the screws when installing each module.

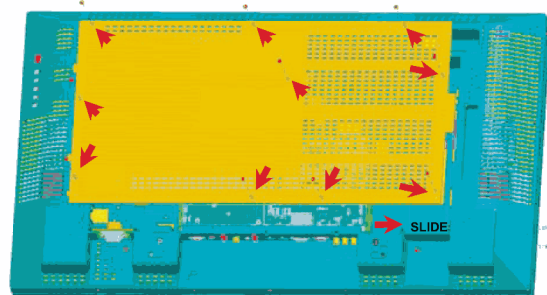
8.3. Pedestal (option) removal

If the pedestal (option) is installed, remove the 2 screws for the pedestal on each side, and then remove the pedestal.



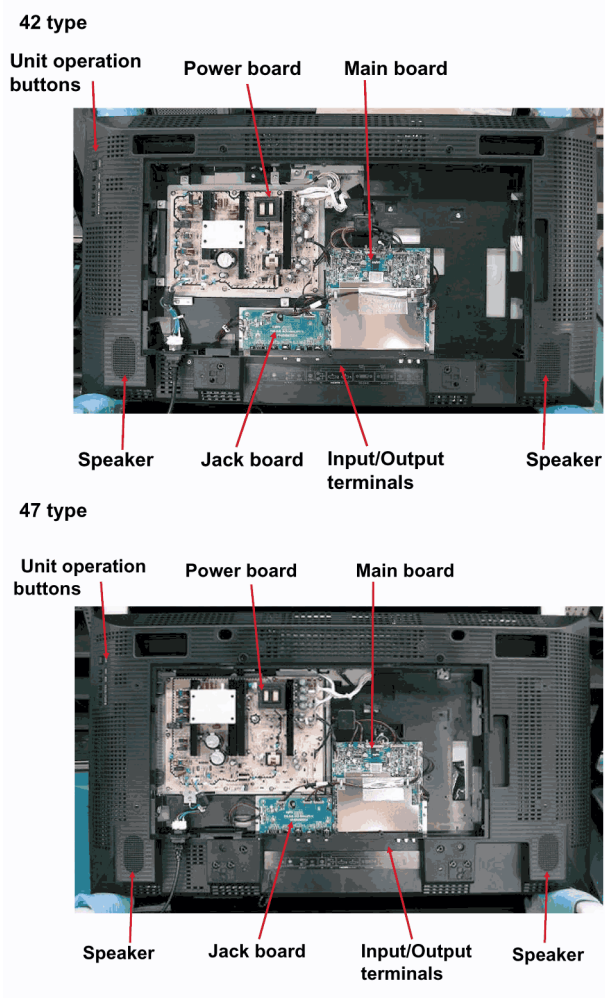
8.4. Rear cover removal

First remove the 10 screws on the rear cover, and then remove the rear cover. (SCR TPG BRZ 4x10)



Boards & Parts location

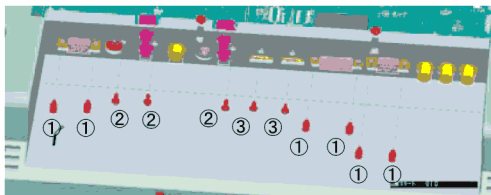
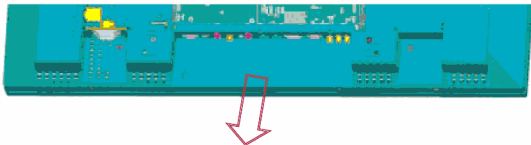
This unit is designed so that removing the rear cover reveals the configuration of the boards.



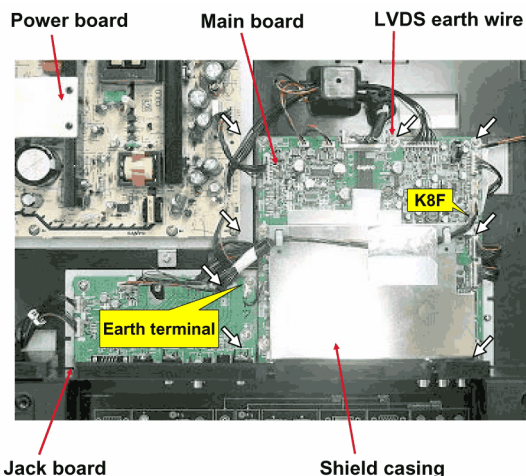
8.5. Replacement method for main board and jack board

1. The terminal section is screwed in from the outside, so remove the screws as shown in the illustration.

- ① 6 Hexagonal-Head nuts. Serial terminal, DVI IN terminal, PC IN terminal (SPECIAL SCREW)
- ② Qty. 3...AV IN terminal (SCR TPG BRZ 3X8)
- ③ Qty. 2...HDMI terminal (SCR PAN 3X6)



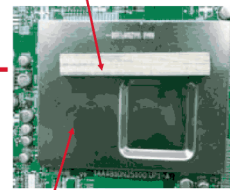
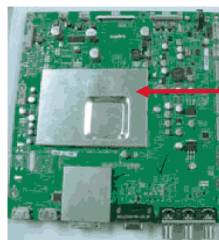
2. Remove 1 screw on the jack board that screws in the earth terminal which comes off from the left side of the main board. (SCR PAN+SW+W 3X8)
3. Remove the 7 screws that screw the shield casing onto the main board. (SCR PAN+SW+W 3X8)
4. Remove the coupler that is connected to the main board, and then carefully remove the main board. Couplers on the main board: K16C, KSPR, KSPL, KLVP, K16B, K16A, K8F, K72E, K72D
5. Replace the main board with the replacement board.



Precautions when removing and installing

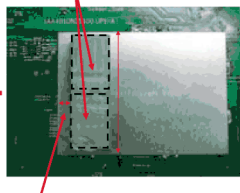
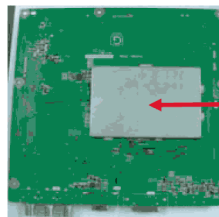
- The lead wire is affixed to the shield casing on the main board with aluminum foil tape. Re-use the shield casing with the lead wire affixed as is.
- The gasket is affixed to both sides of the main board. The gasket is not included on the replacement board, so replace the gasket at the same time as well.

Gasket
(AW-N6EE Qty. 1)



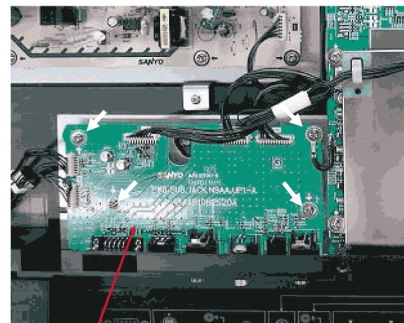
Horizontally, it is positioned roughly in the center. Vertically, it is affixed along the depression.

Gasket
(AW-N4TE Qty. 2)



It is positioned 5-10 mm from the edge. Vertically, it is positioned roughly in the center.

6. Remove the 4 screws that screw in the jack board. (SCR PAN+SW+W 3X8)
7. Remove the couplers that is connected to the jack board and carefully remove the jack board. Couplers on the jack board: K39H, K39G, K19F, K10E, K10D
8. Replace the jack board with the replacement board.



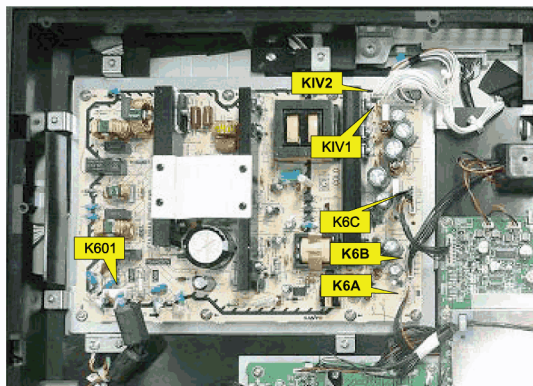
Jack board

8.6. Replacement method for Power board

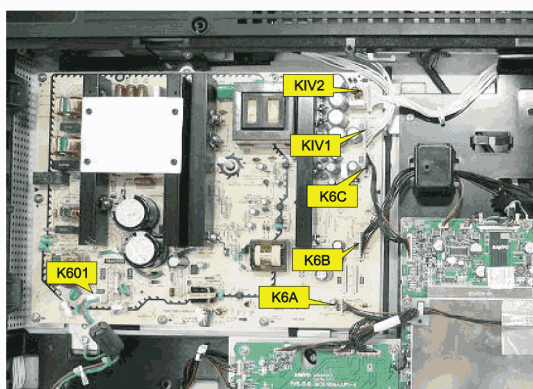
1. Remove the couplers that are connected to the Power board.

Couplers on the Power board: K601, KIV2, KIV1, K6C, K6B, K6A

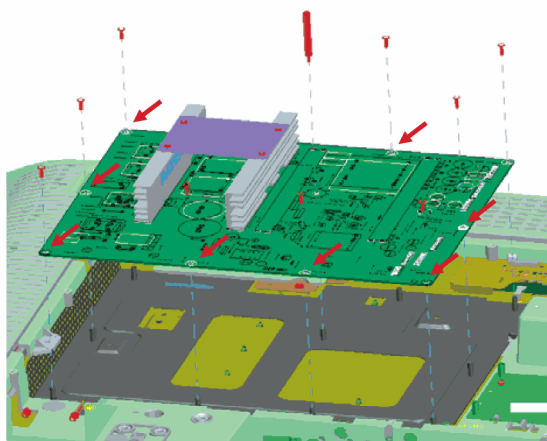
42 type



47 type



2. Remove the screws (47V type: 9 screws, 42V type: 8 screws) that screw the Power board in place. (SCR PAN+SW+W 3X8) Pull out the boss (plastic) that holds the Power board.
3. Remove the Power board carefully and replace it with the replacement board. (The replacement board is equipped with a fuse.)

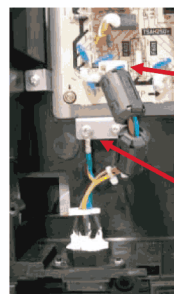


8.7. Replacement method for AC cord bracket

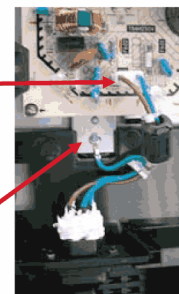
1. Remove the K601 connector for the AC cord bracket from the Power board.
2. Remove 1 screw that screws in the earth wire for the AC cord.

Screw: SCR BIN 4X6

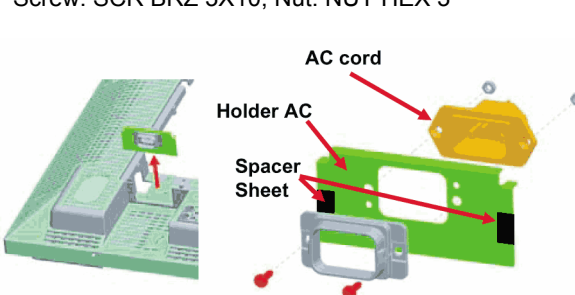
42V type



47V type



3. Pull out the AC cord bracket from the slit on the cabinet back.
4. Remove the screws (Qty. 2) and nuts (Qty. 2) shown in the illustration, and then remove the AC cord component.



5. Replace the AC cord.

Precautions when removing and installing

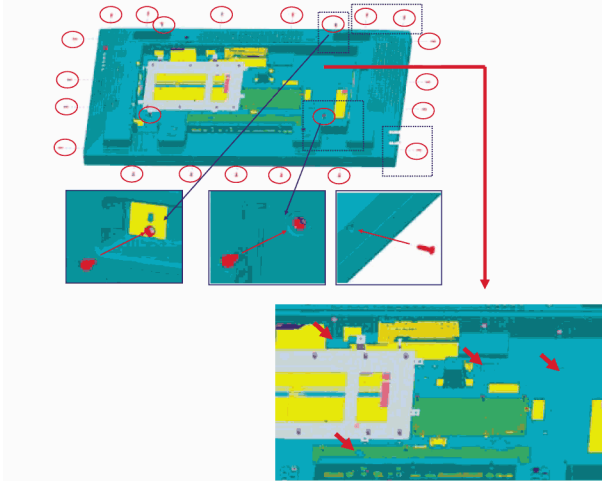
- The lead wire is affixed to the shield casing on the main board with aluminum foil tape. Re-use the shield casing with the lead wire affixed as is.
- The gasket is affixed to both sides of the main board. The gasket is not included on the replacement board, so replace the gasket at the same time as well.

8.8. Cabinet back removal (42 type)

Precautions when removing and installing

- Be careful not to strip the screw's thread, etc., as the screws that screw into the cabinet back's periphery impact the outward appearance.
- When re-installing the rear cover, be careful which holes the wires come out from. (Refer to the wiring connection diagram)

1. Remove the screws (Qty. 23) on the periphery of the cabinet back. (SCR FLT 4X12)
2. Remove the screws (Qty. 4) on the inside part of the rear cover. (SCR BIN 4X6)
3. Remove the cabinet back carefully.



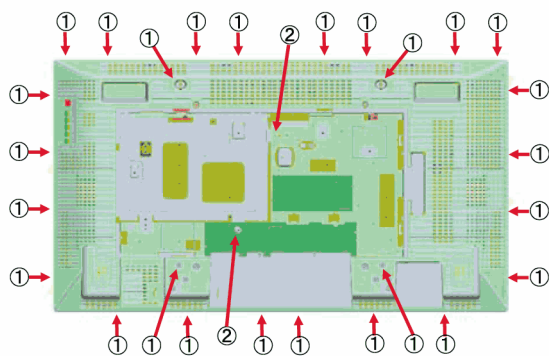
8.9. Cabinet back removal (47 type)

Precautions when removing and installing

- Be careful not to strip the screw's thread, etc., as the screws that screw into the cabinet back's periphery impact the outward appearance.
- When re-attaching the cabinet back, be careful which holes the wires come out from. (Refer to the wiring connection diagram)

1. Remove the screws.

(① SCR FLT 4X12 Qty. 26, ② SCR BIN 4X6 Qty. 2)



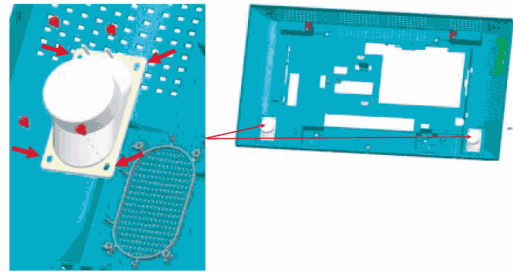
2. Remove the cabinet back carefully.

8.10. When removing the cabinet back with the board connected

1. Remove the following board couplers.
Jack board: K39H
Main board: KLVP
Power board: KIV1, KIV2
2. Remove according to the previous section "Cabinet back removal".

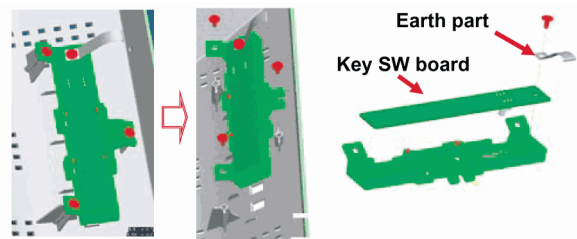
8.11. Replacement method for speakers

1. Remove the cabinet back.
2. Peel off the tape halfway that affixes the speaker lead on the inside of the cabinet back, and then remove the speaker lead. (Refer to the wiring connection diagram)
3. Remove the screws (Qty. 4 on each side) that screw in the speaker unit and then replace it with the repair speaker unit. (SCR S-TPG BRZ+FLG 3.0X8.0 V)



8.12. Key SW board replacement

1. Remove the cabinet back.
2. Peel off the tape halfway that affixes the lead wire for the key SW board on the inside of the cabinet back, and then remove the lead wire. (Refer to the wiring connection diagram)
3. Remove the 4 screws and replace the key SW board. (SCR S-TPG BRZ+FLG 3.0X8.0 V)



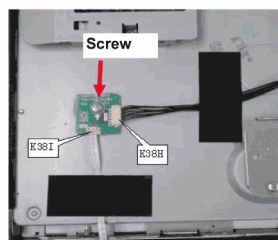
Precautions when installing

- The lead wire is affixed to the shield casing on the main board with the earth part on the key SW board, do not forget to install so the key SW board is at a right angle. minium foil tape. Re-use the shield casing with the lead wire affixed as is.
- Secure the speaker and key SW board lead wires down onto the inside of the cabinet back with tape so they do not pop up.
- When re-attaching the rear cover, be careful which holes the wires come out from. (Refer to the wiring connection diagram)

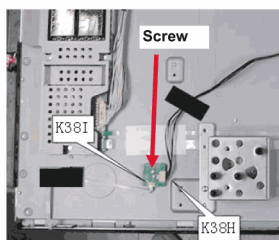
8.13. Connector board removal

1. Peel off the tape halfway that affixes the FFC cable and lead wire for the connector board to the rear side of the LCD panel, and remove them from the rear side of the panel. (Refer to the wiring connection diagram)
2. Remove the FFC cable (K38I) and the coupler (K38H) from the connector board.
3. Remove the screw (Qty. 1), and remove the connector board from the rear side of the LCD panel, and then replace. (SCR PAN+SW 4X6)

42 type



47 type



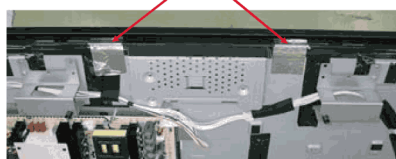
8.14. LCD panel replacement

Precautions when replacing the LCD panel

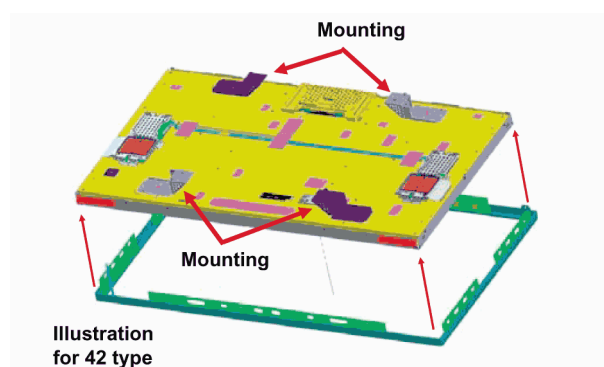
- The 2 lead wires for the inverter (Couplers KIV1 and KIV2), the black-out tape and the spacer sheet, etc., are supplied already affixed to the LCD panel.
- The tape that is affixed to the FFC cable and the lead wires on the connector board are supplied as repair parts. Replace them at the same time as the LCD panel.

1. Follow the procedure mentioned previously, and remove the connector board, the FFC cable and the lead wire from rear side of the LCD panel.
2. Peel off the 2 pieces of aluminum foil tape that are affixed to and cross over the rear side of the LCD panel and the upper part of the mounting that connects the cabinet front and LCD panel.

Aluminum foil tape



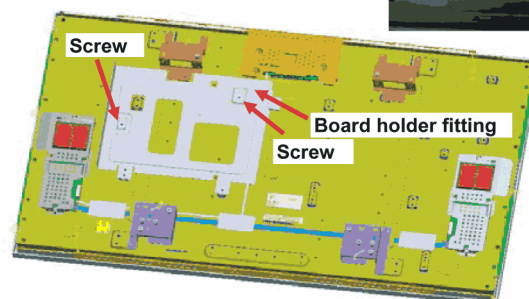
3. While widening the mounting that connects the cabinet front and the LCD panel, remove the cabinet front from the LCD panel. When lifting up the LCD panel, hold the mounting component.



4. Remove the screws (Qty. 8), and then remove the mounting from the rear side of the LCD panel. (SCR BIN 4X6)
5. (47V type only) Remove the screws (Qty. 2) and then remove the Power board holder fittings from the rear side panel. (SCR BIN 4X4)
 - The Power board holder fittings are not available in the repair parts.
6. Replace the LCD panel with the replacement LCD panel.
7. Use 2 pieces of replacement aluminum foil tape and cover the screw hole on the upper part of the mounting so it is affixed to and crosses over the mounting top and the rear side of the LCD panel.

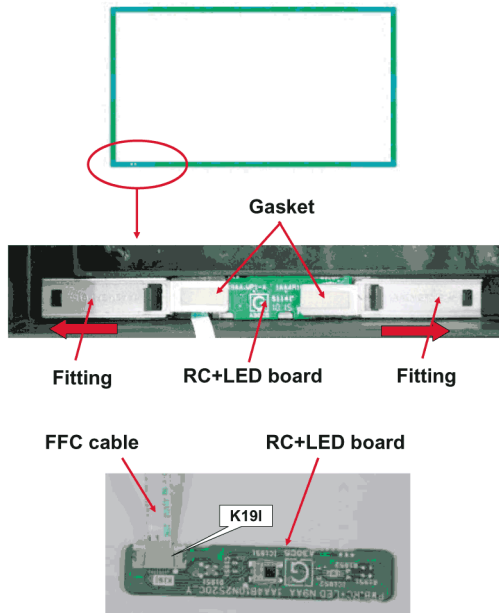
47 type

Screw hole

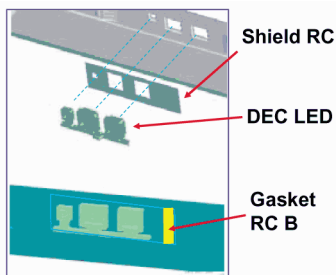


8.15. Replacement method for RC+LED board

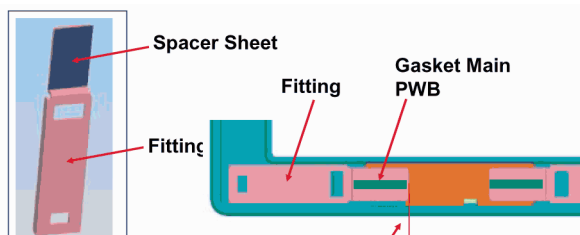
1. Slide the 2 fittings on the inside of the cabinet front toward the outside and remove.
2. Remove the FFC cable from the RC+LED board's coupler (K19I), and replace the board with the replacement board.



3. When replacing the cabinet front, remove the shield RC and the DEC LED (clear plate) on the inside. The gasket is affixed to the shield RC. When replacing, also replace the gasket.



4. The spacer sheet and the gasket are affixed to the fittings that hold down the RC+LED board. When replacing the fittings, also replace the spacer sheet and the gasket.



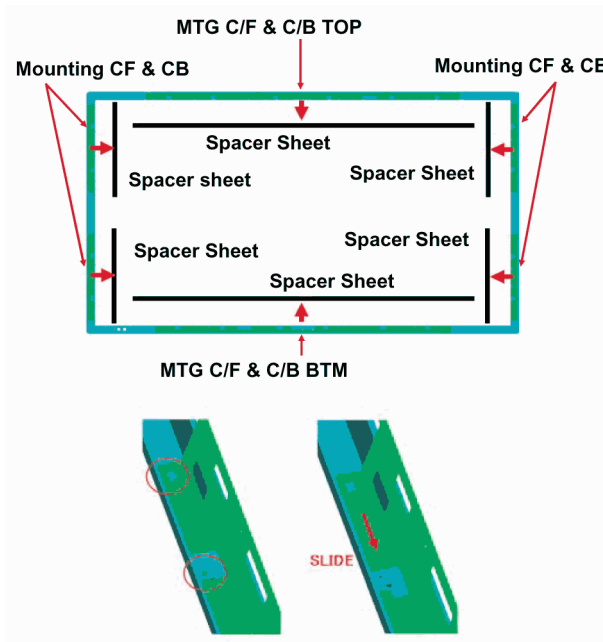
The fittings on the right and left should be set to the end and are positioned so they are vertically centered.

8.16. Cabinet front replacement

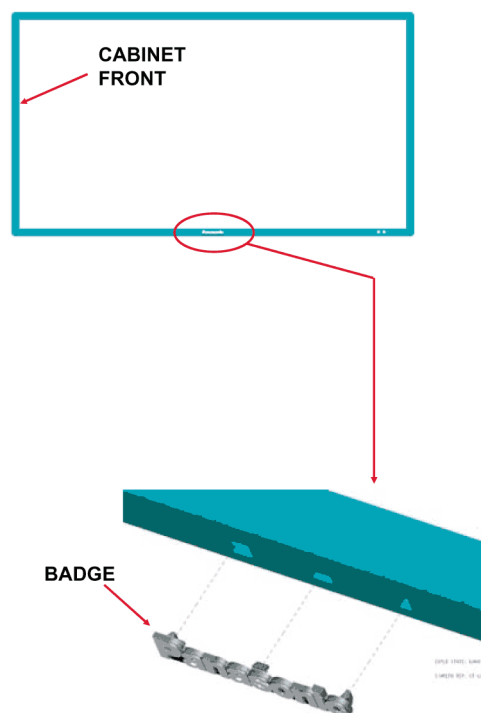
Precautions when replacing

- The parts that are necessary for replacement (spacer sheet, Panasonic badge, etc.) are not included. They are supplied as replacement parts. Replace them at the same time as the cabinet front.

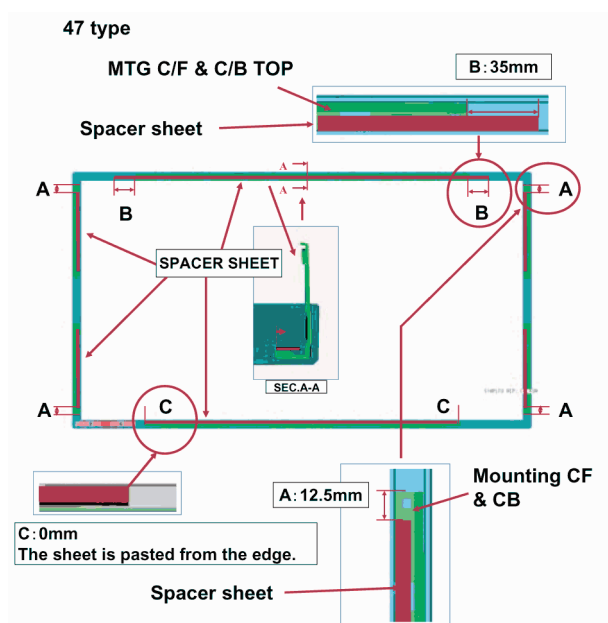
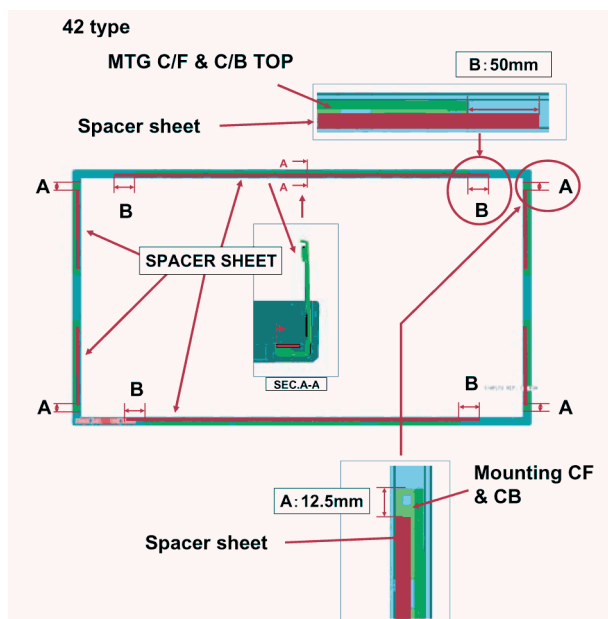
1. Remove the spacer sheet that is affixed to the inside of the cabinet front.
2. Slide off the mounting and remove it from the cabinet front.



3. Affix the Panasonic badge to the replacement cabinet front beforehand.



4. Install the RC+LED board onto the cabinet front.
5. Slide the mounting on and install it onto the cabinet front.
6. Affix the spacer sheet onto the mounting.



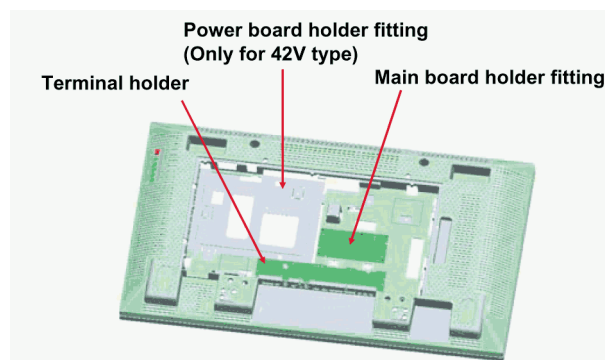
7. Install the cabinet front, that is prepared beforehand, onto the set.

8.17. Cabinet back replacement

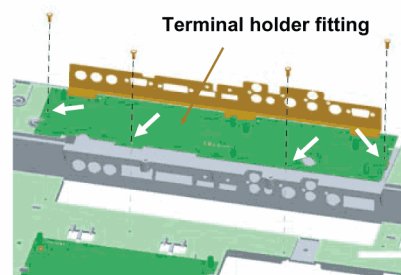
Precautions when replacing

- The parts that are necessary for replacement (DEC button, DEC AV, etc.) are not included. They are supplied as replacement parts. Replace them at the same time as the cabinet back.

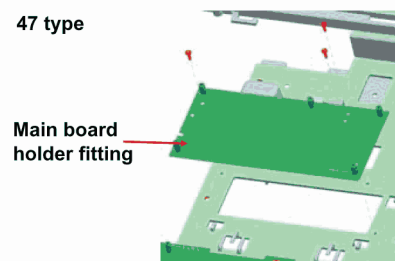
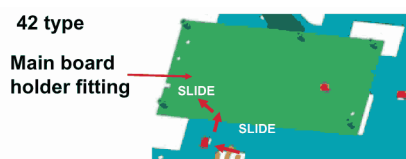
1. Remove each board, speaker and fitting from the cabinet back.



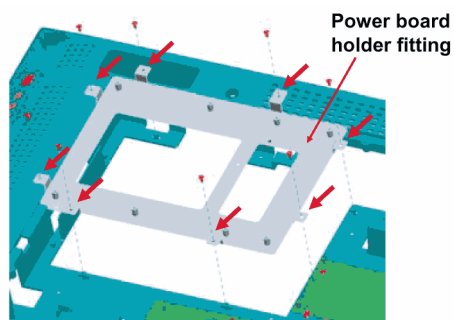
2. Remove the screws (Qty. 4) shown in the illustration, and remove the terminal holder fitting.
(SCR S-TPG BRZ+FLG 3.0X8.0 V)



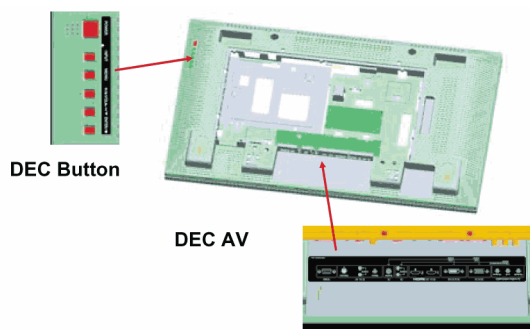
3. Remove the screws shown in the diagram, and then remove the main board holder fitting.
(42V type: Qty. 1 SCR S-TPG BRZ+FLG 3.0X8.0 V)
(47V type: Qty. 3 SCR S-TPG BRZ+FLG 3.0X8.0 V)



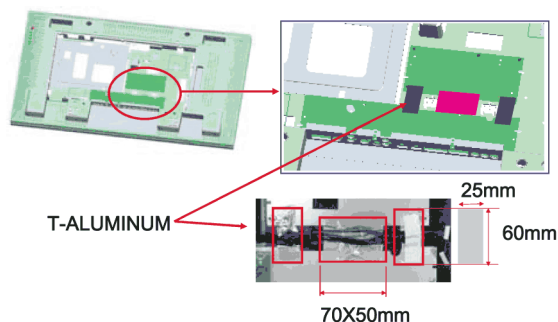
4. (42 type only) Remove the screws shown in the illustration, and then remove the Power board holder fitting. (SCR S-TPG BRZ+FLG 3.0X8.0 V)



5. Affix the DEC button and DEC AV beforehand to the repair cabinet back.



6. Install the main board holder fitting and the terminal holder fitting to the replacement cabinet back.
7. Affix 3 pieces of aluminum tape to the metal section of the main board holder fitting and the terminal holder fitting so they are connected.



8. Install the replacement cabinet back, that is prepared beforehand, onto the set.

Precautions for replacing

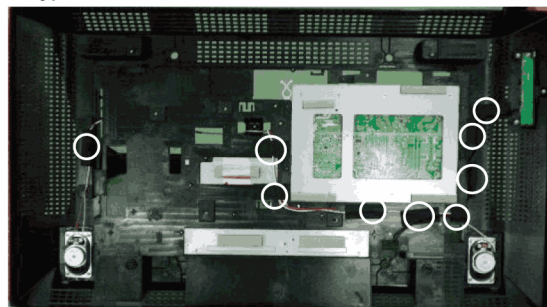
- The terminal holder fitting, the main board holder fitting, and the Power board holder are available in the replacement parts.
- Use the gasket with the holder fitting that is affixed as is.
- The type of tape for affixing, in order to set up the lead wire on the rear side of the cabinet back, is not included. When replacing the cabinet back, also replace the type of tape that is used.

When replacing the cabinet back, secure the lead wires for the speaker and key SW board to the cabinet back with replacement tape. The circle mark in the picture below shows where to affix the tape. (Adhesive cloth tape)

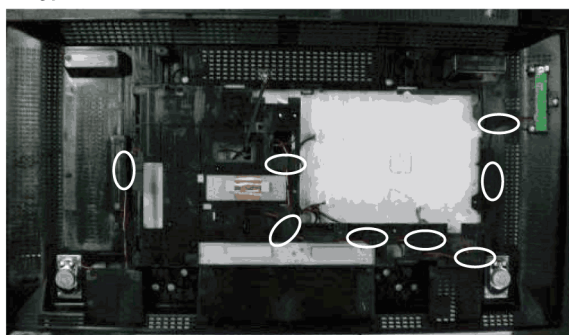
Caution

- Affix the tape so the lead wire is sealed tightly onto the cabinet back. If the lead wire pops up, it may get close to the board or a high temperature area and cause a chattering noise.

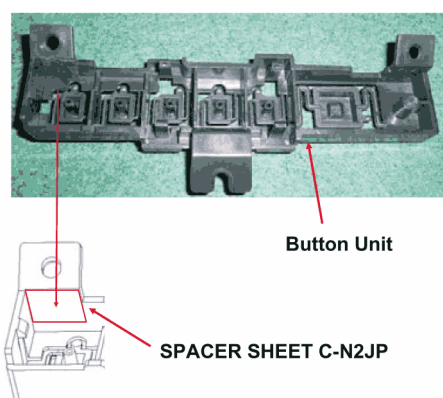
42 type



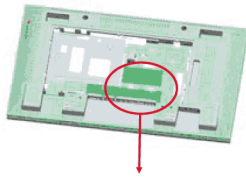
47 type



When replacing the button unit that is installed onto the key SW board, affix a spacer sheet onto the button unit.



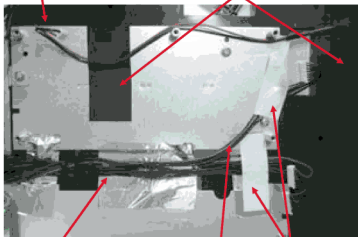
When replacing the cabinet back, secure the lead wires for the speaker and main board to the cabinet back with replacement tape.



42 type

Lead wire: Main KSPL-Speaker L

Adhesive cloth tape



Epoxy tape

Lead wire: Power K6A-Main

Lead wire:
Jack K10E-Main K72E,
Jack K10D-Main K72D

47 type

Lead wire: Main KSPL-Speaker L

Adhesive cloth tape

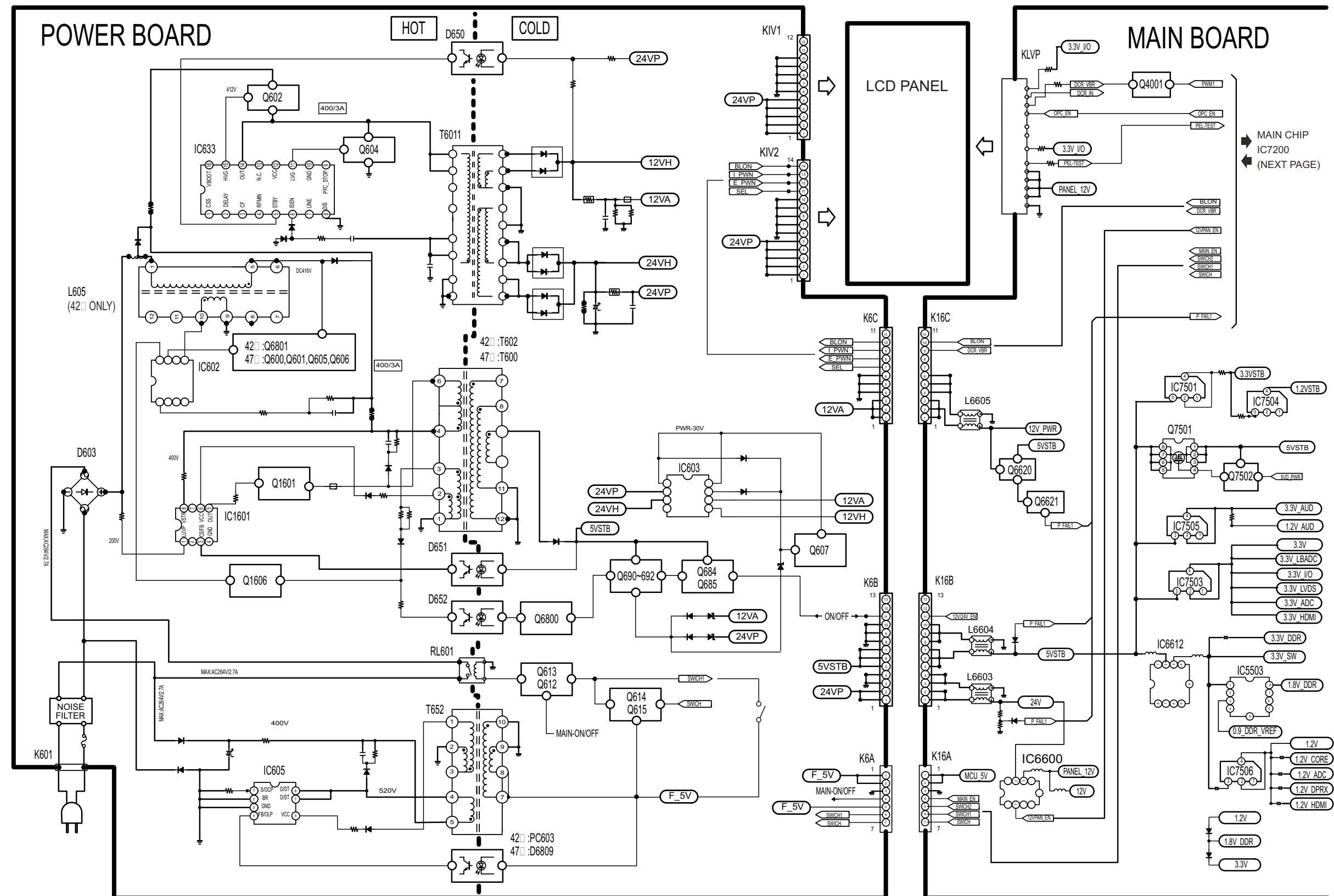


Epoxy tape

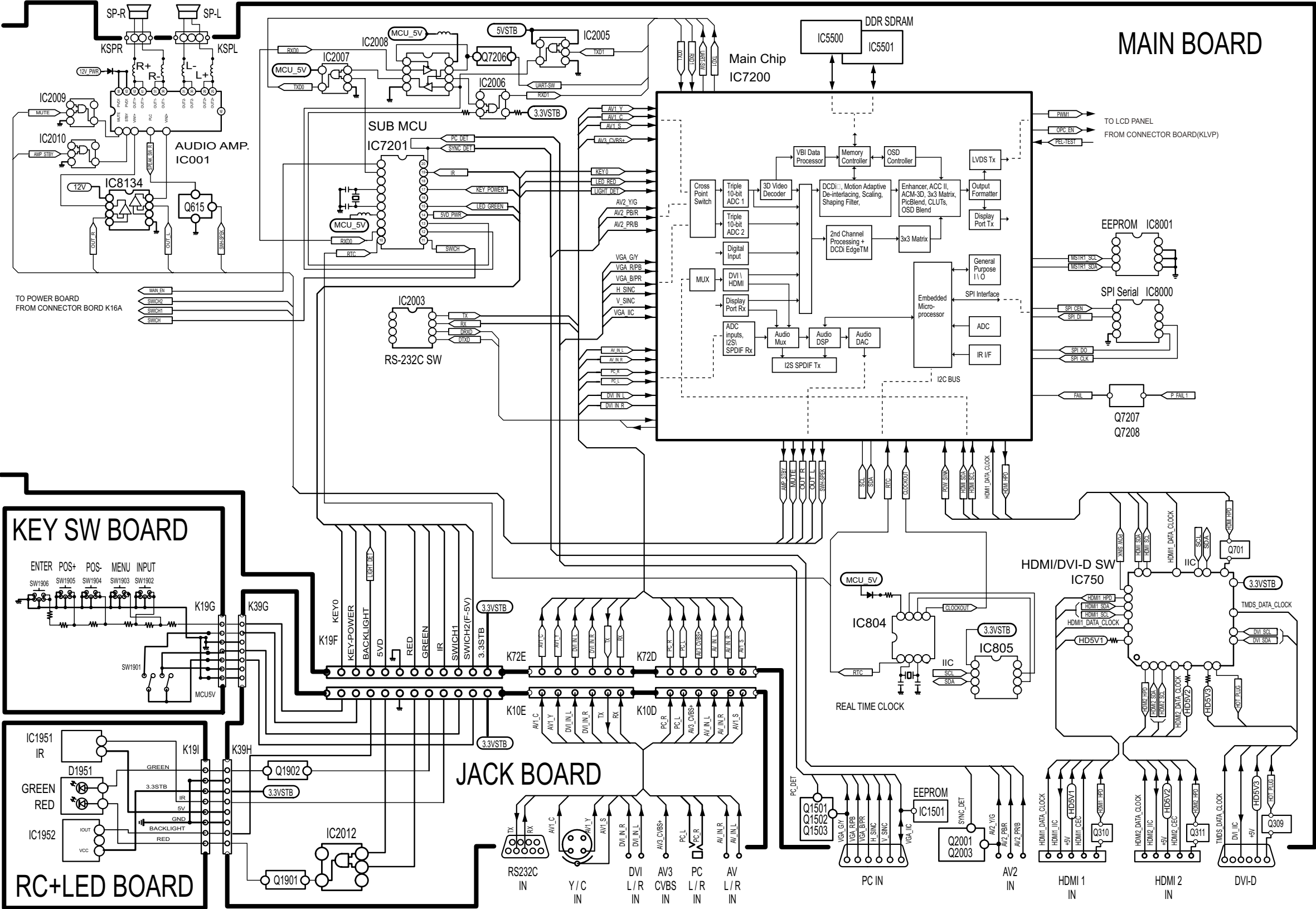
Lead wire:
Power K6A-Main K16A,
Jack K10E-Main K72E,
Jack K10D-Main K72D

9 Block Diagram

9.1. Block (1 of 2) Diagram

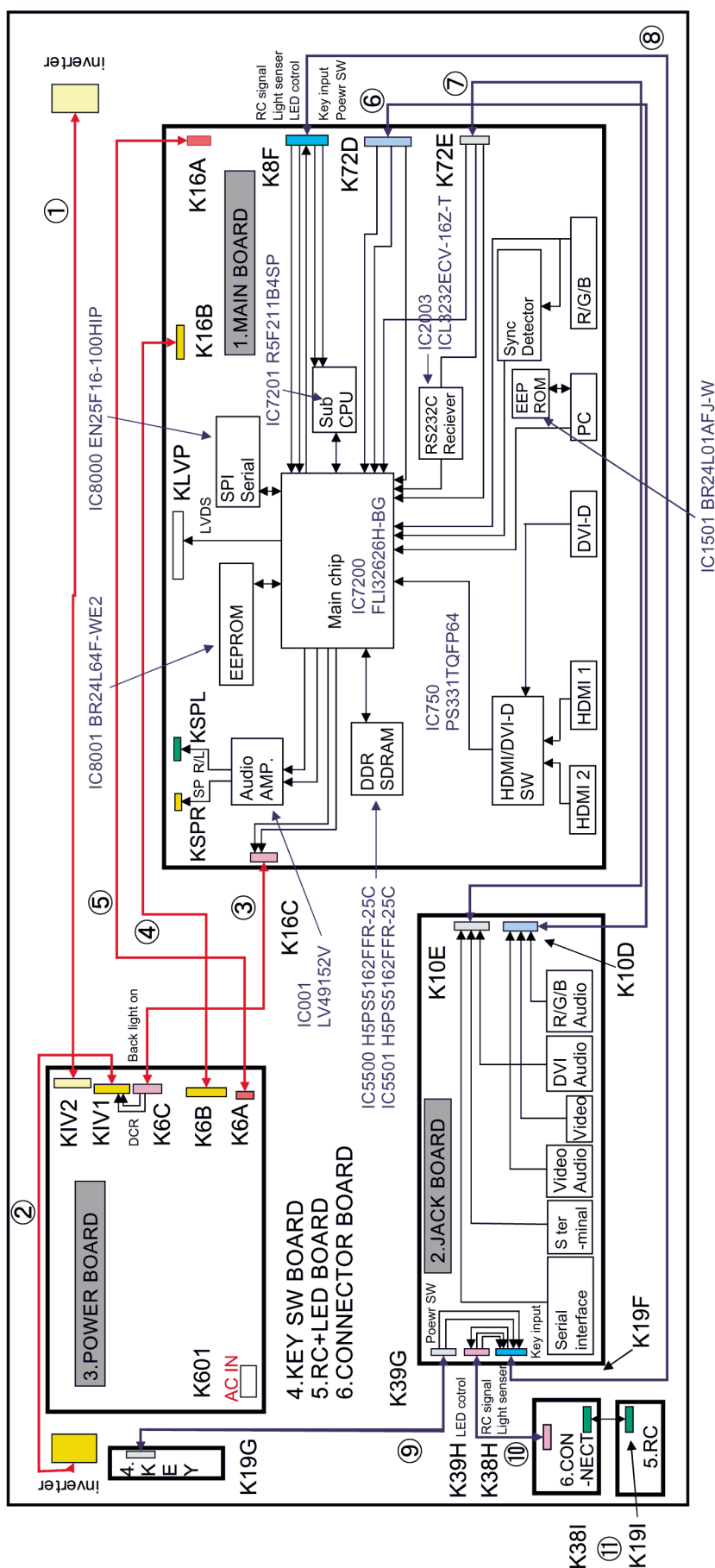


9.2. Block (2 of 2) Diagram



10 Wiring Connection Diagram

10.1. Wiring Connection Diagram (1)



POWER KIV2 ~ INVERTER

①2.0mm pitch	
PIN1	24VP
PIN2	24VP
PIN3	24VP
PIN4	24VP
PIN5	24VP
PIN6	GND
PIN7	GND
PIN8	GND
PIN9	GND
PIN10	GND
PIN11	(NC)
PIN12	(NC)

POWER KIV1 ~ INVERTER

②2.0mm pitch	
PIN1	24VP
PIN2	24VP
PIN3	24VP
PIN4	24VP
PIN5	24VP
PIN6	GND
PIN7	GND
PIN8	GND
PIN9	GND
PIN10	GND
PIN11	SEL
PIN12	(NC)
PIN13	DCR_VBR
PIN14	BL_ON

POWER K6C ~ MAIN K16C

③2.0mm pitch	
PIN1	12V_PWR
PIN2	12V_PWR
PIN3	12V_PWR
PIN4	GND
PIN5	GND
PIN6	GND
PIN7	SEL
PIN8	(NC)
PIN9	DCR_VBR
PIN10	BL_ON
PIN11	(NC)

POWER K6B ~ MAIN K16B

④2.0mm pitch	
PIN1	24V
PIN2	24V
PIN3	GND
PIN4	GND
PIN5	5VSTB
PIN6	5VSTB
PIN7	5VSTB
PIN8	GND
PIN9	GND
PIN10	GND
PIN11	12V/24V_EN
PIN12	GND
PIN13	GND

POWER K6A ~ MAIN K16A

⑤2.0mm pitch	
PIN1	MCU_5V
PIN2	MCU_5V
PIN3	GND
PIN4	MAIN_EN
PIN5	MCU_5V
PIN6	SWITCH1
PIN7	SWITCH

JACK K10D ~ MAIN K72D

⑥1.5mm pitch	
PIN1	AV1_S
PIN2	GND
PIN3	AV_IN_R(audio)
PIN4	GND
PIN5	AV_IN_L(audio)
PIN6	GND
PIN7	AV_CVBS
PIN8	GND
PIN9	PC_IN_L(audio)
PIN10	GND
PIN11	PC_IN_R(audio)
PIN12	GND

JACK K10E ~ MAIN K72E

⑦1.5mm pitch	
PIN1	RX
PIN2	TX
PIN3	GND
PIN4	DVI_IN_R(audio)
PIN5	GND
PIN6	DVI_IN_L(audio)
PIN7	GND
PIN8	AV1_Y
PIN9	GND
PIN10	AV1_C

JACK K19F ~ MAIN K8F

⑧1.5mm pitch	
PIN1	KEY0
PIN2	KEY_POWER
PIN3	LIGHT_DET
PIN4	5VD
PIN5	GND
PIN6	LED_RED
PIN7	LED_GREEN
PIN8	IR
PIN9	SWITCH1
PIN10	MCU_5V

KEY SW K19G ~ JACK K39G

⑨1.5mm pitch	
PIN1	KEY0
PIN2	KEY_POWER
PIN3	GND
PIN4	SWITCH1
PIN5	MCU_5V
PIN6	SWITCH1
PIN7	GND

JACK K39H ~ CONNECTUR K38H

⑩1.5mm pitch	
PIN1	LED_R
PIN2	LIGHT_DET
PIN3	GND
PIN4	SWITCH1
PIN5	IR
PIN6	3.3VSTB
PIN7	GND
PIN8	LED_G

CONNECTUR K38I ~ RC+LED K19I

⑪FPC	
PIN1	LED_G
PIN2	GND
PIN3	3.3VSTB
PIN4	IR
PIN5	SWITCH1
PIN6	GND
PIN7	LIGHT_DET
PIN8	LED_R

MAIN KSPR ~ SPEAKER-R

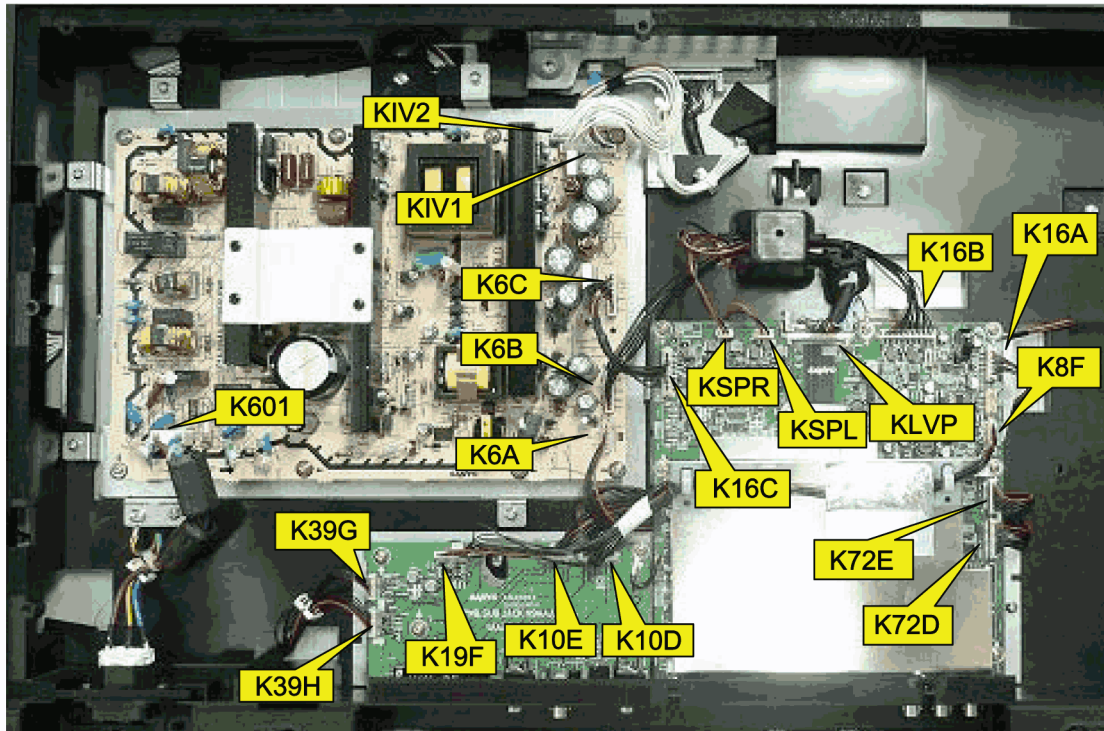
⑫2.0mm pitch	
PIN1	SP_R+
PIN2	SP_R-

MAIN KSPL ~ SPEAKER-L

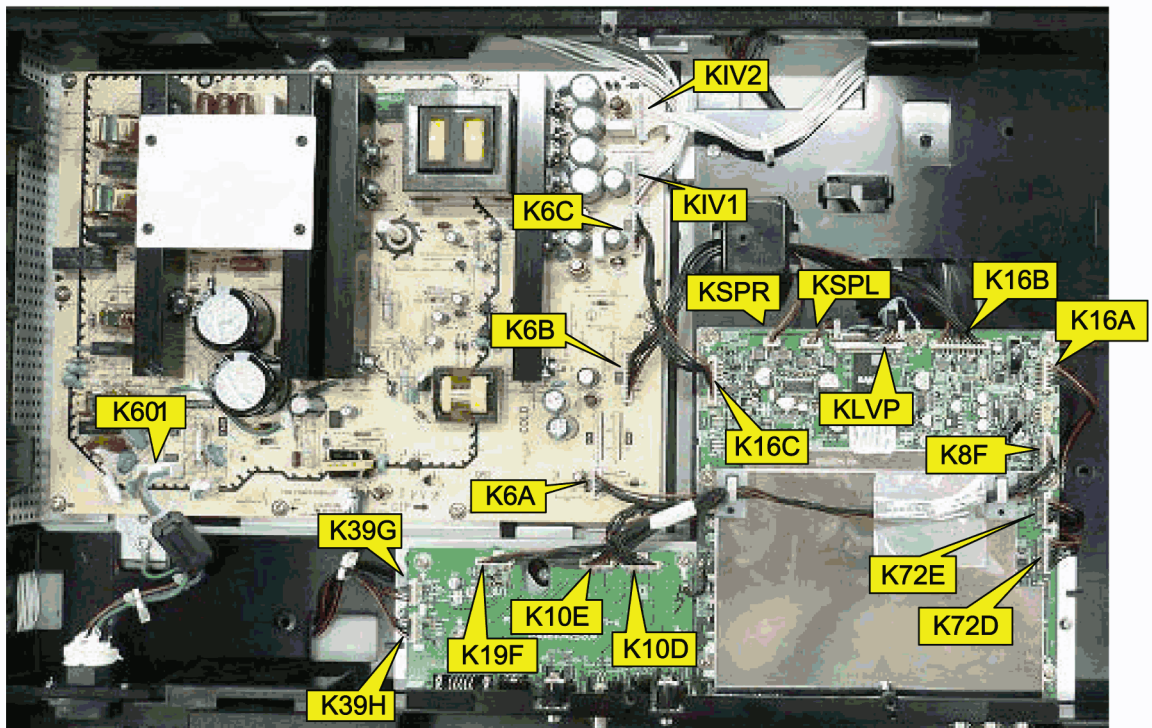
⑬2.0mm pitch	
PIN1	SP_L-
PIN2	(NC)
PIN3	SP_L+

10.2. Wiring Connection Diagram (2)

Connector Position (42 inch)

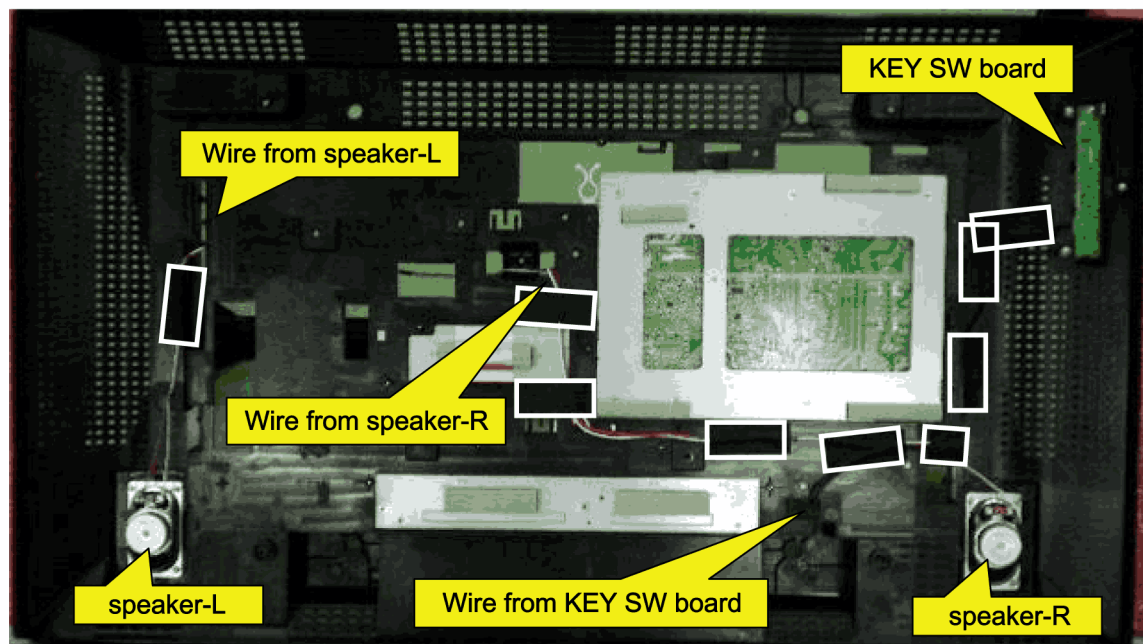


Connector Position (47 inch)



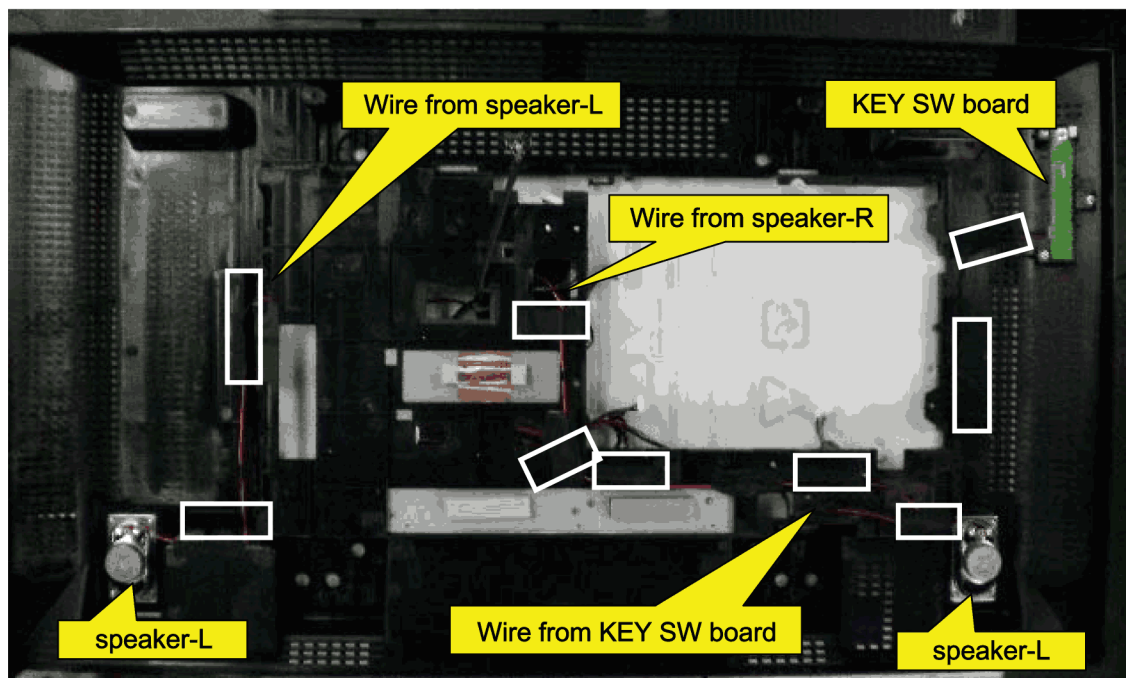
10.3. Wiring Connection Diagram (3)

The back of Cabinet back (42 inch)



□ Mark : ADHESIVE CLOTH TAPE

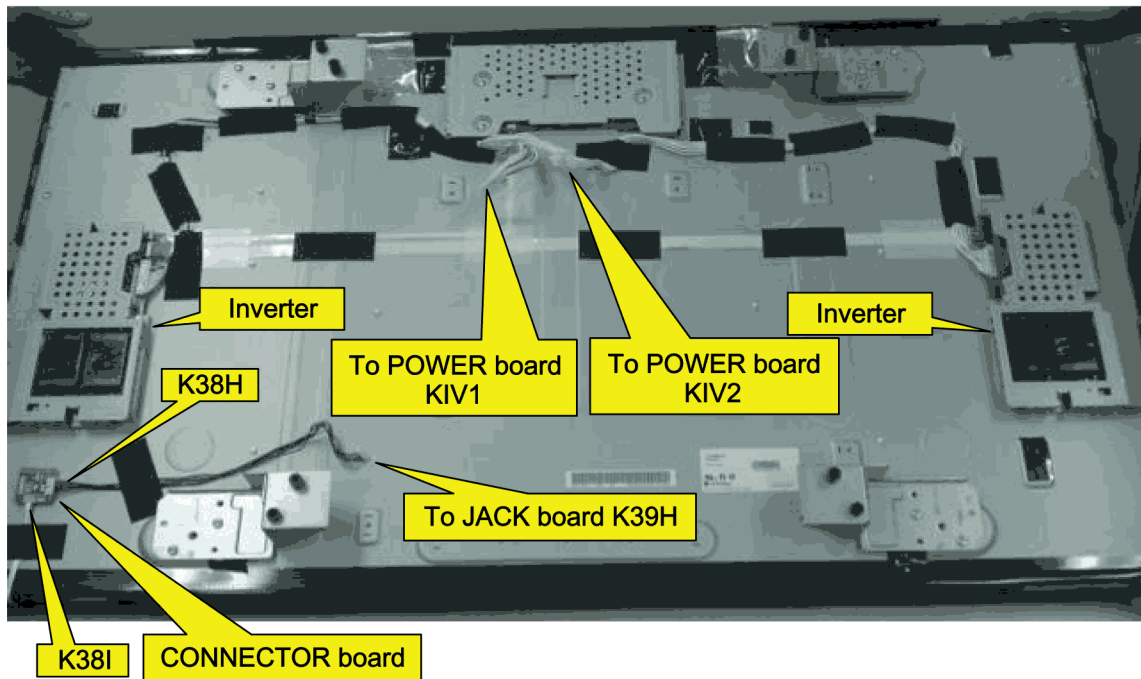
The back of Cabinet back (47 inch)



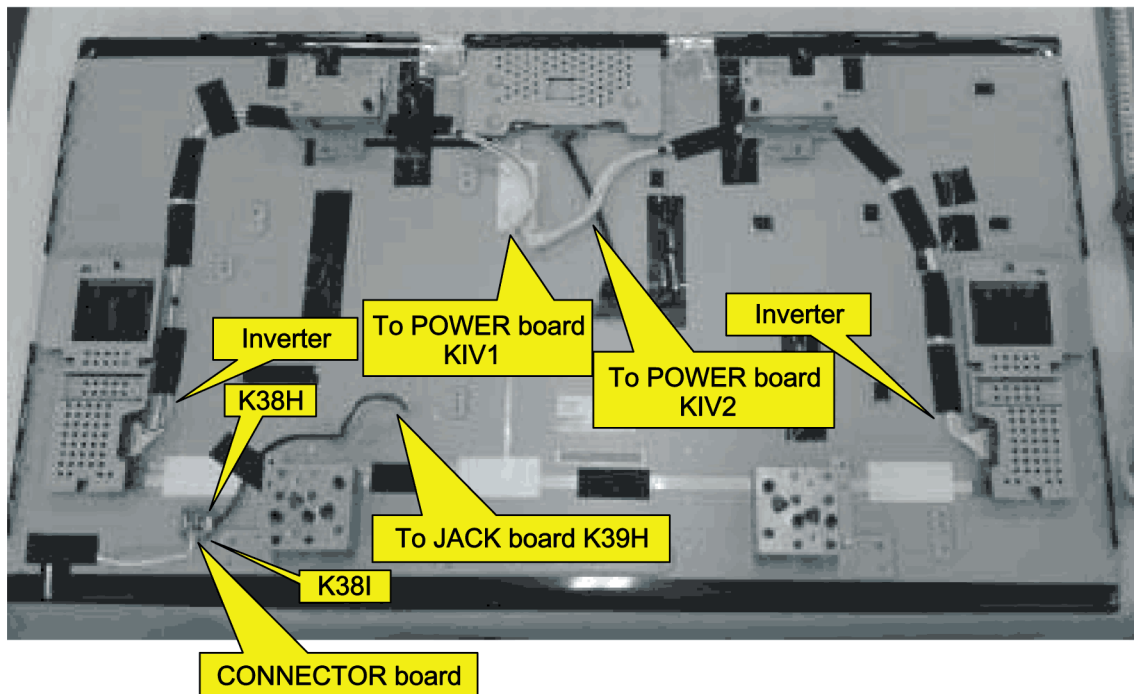
□ Mark : ADHESIVE CLOTH TAPE

10.4. Wiring Connection Diagram (4)

The back of LCD panel (42 inch)



The back of LCD panel (47 inch)

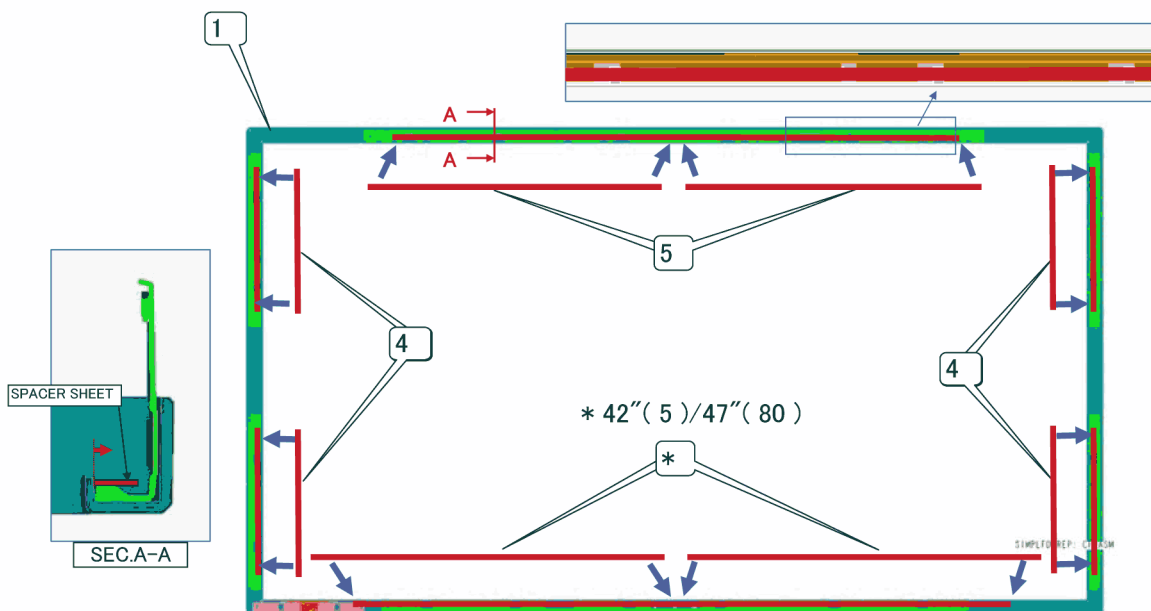
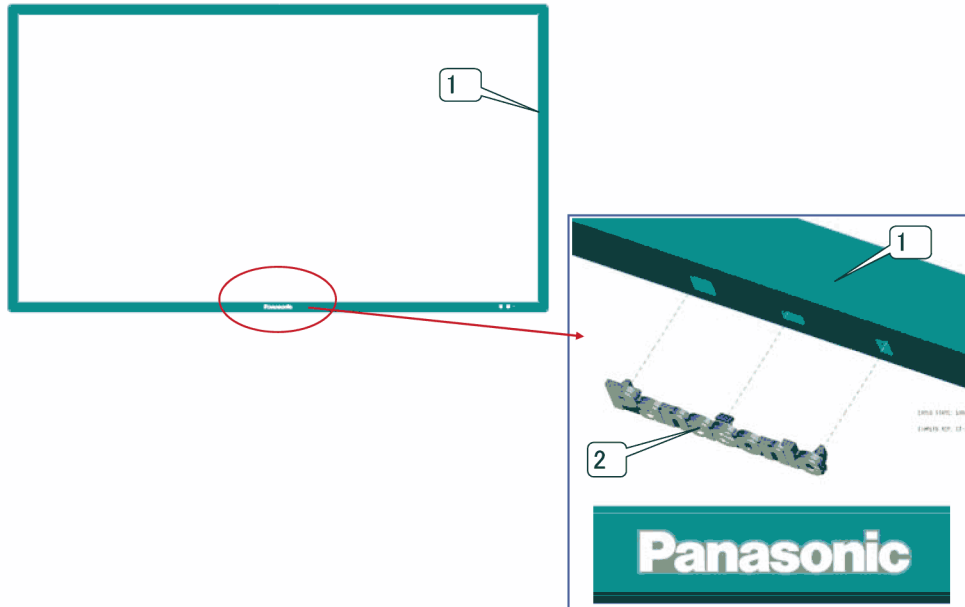


11 Exploded View and Replacement Parts List

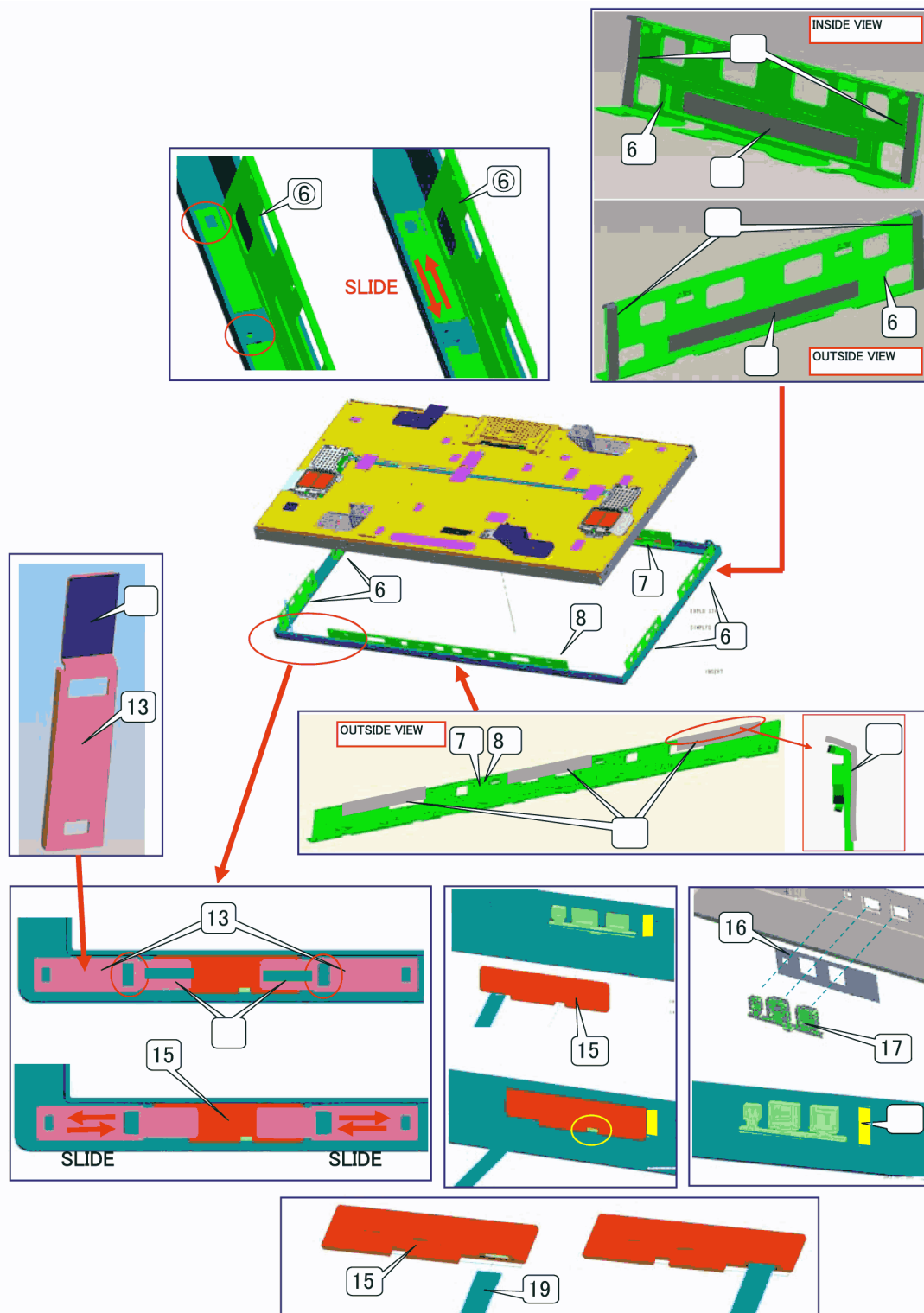
11.1. Exploded View and Mechanical Replacement Parts List

11.1.1. Exploded View

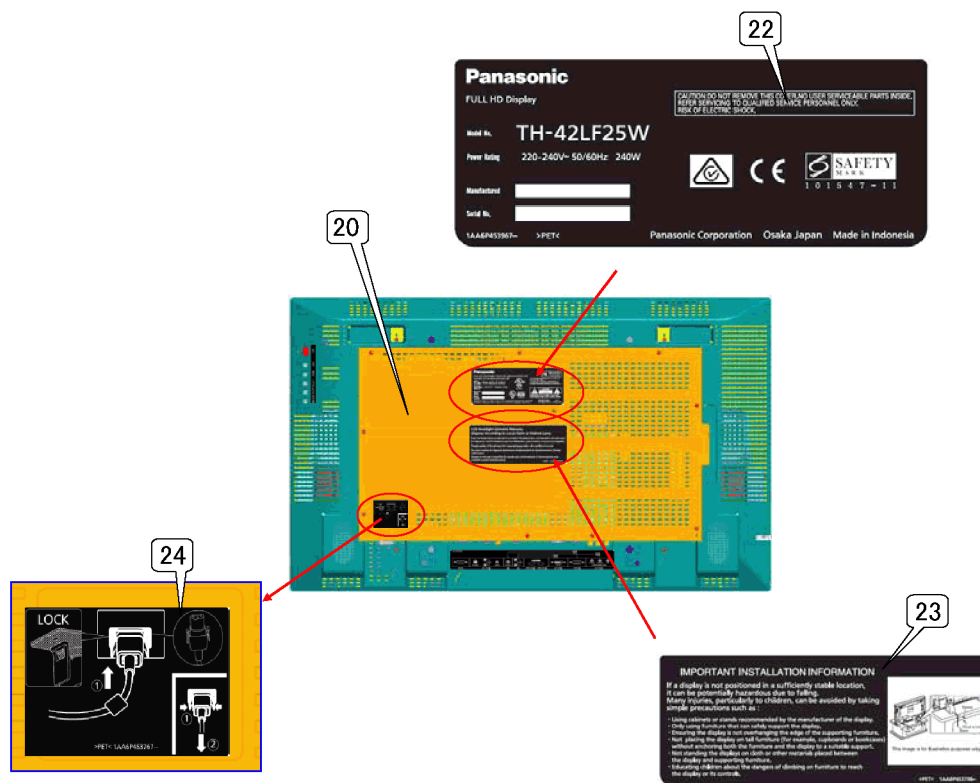
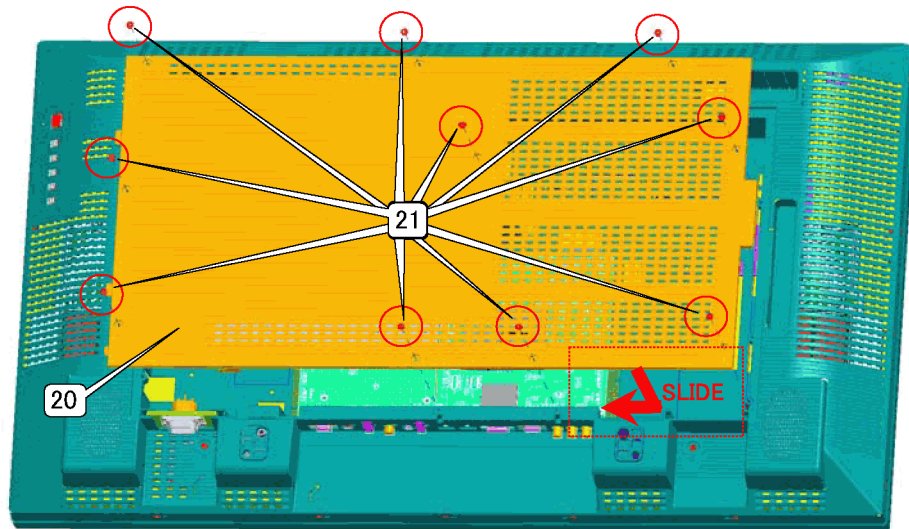
11.1.1.1. Cabinet front (1)



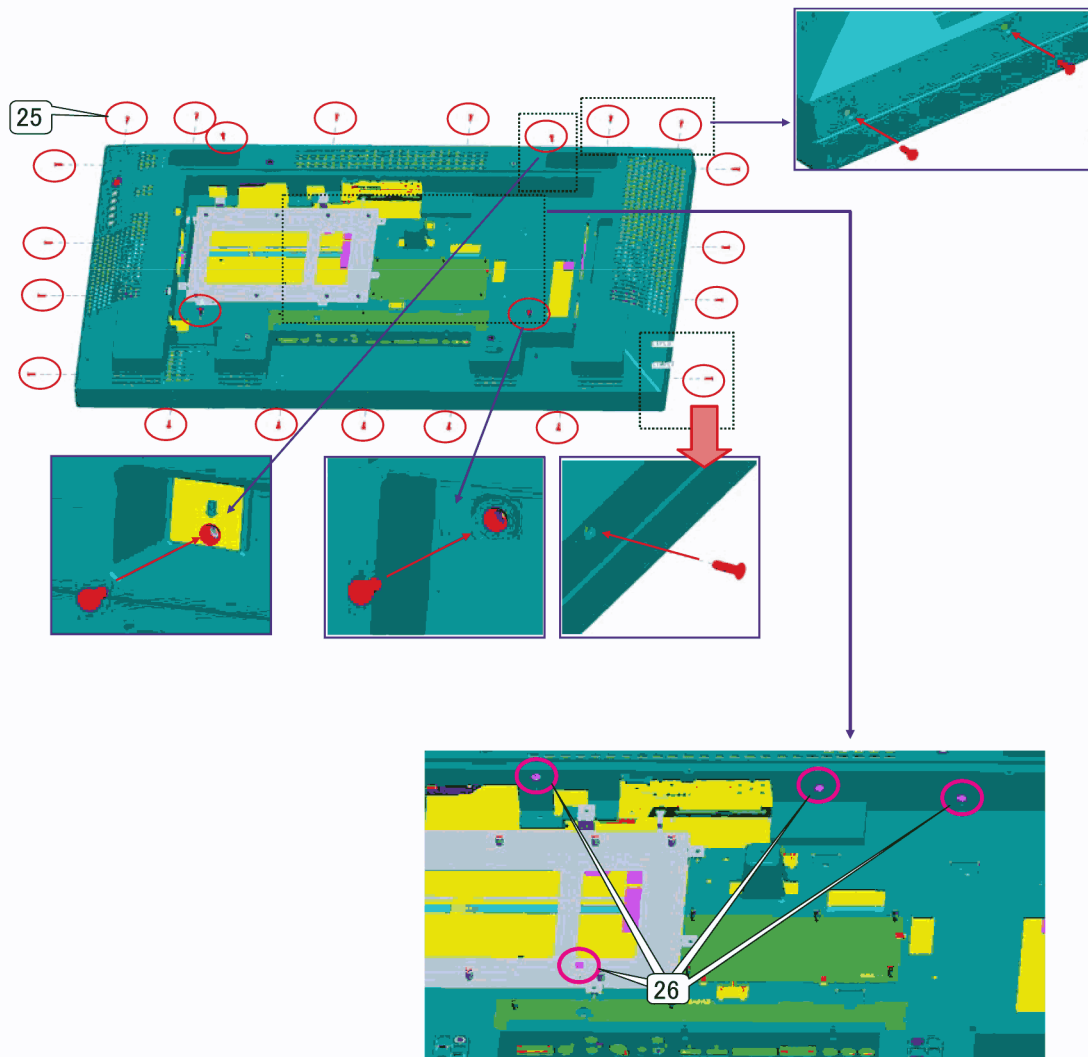
11.1.1.2. Cabinet front (2)



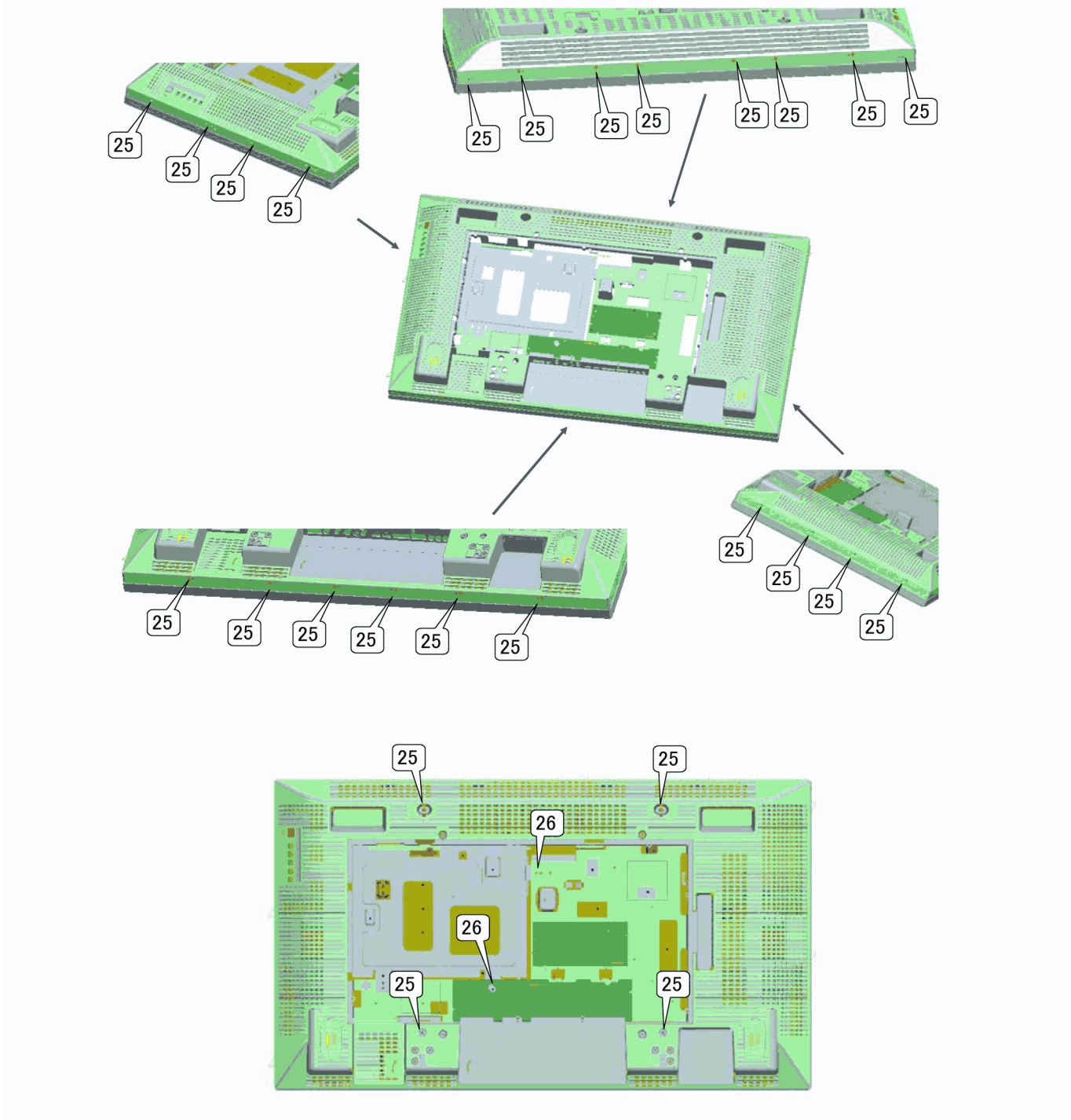
11.1.1.3. Lid back



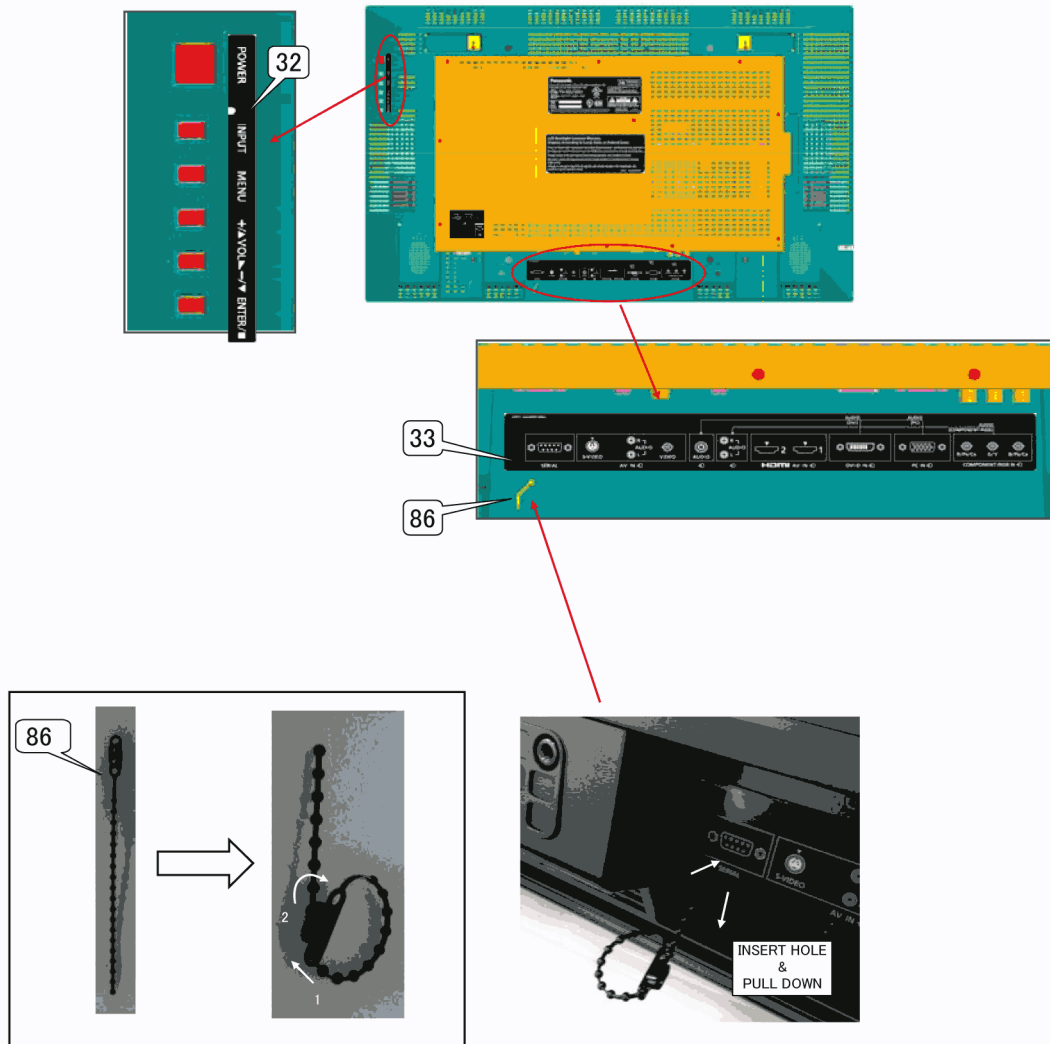
11.1.1.4. Screws for Cabinet back (42")



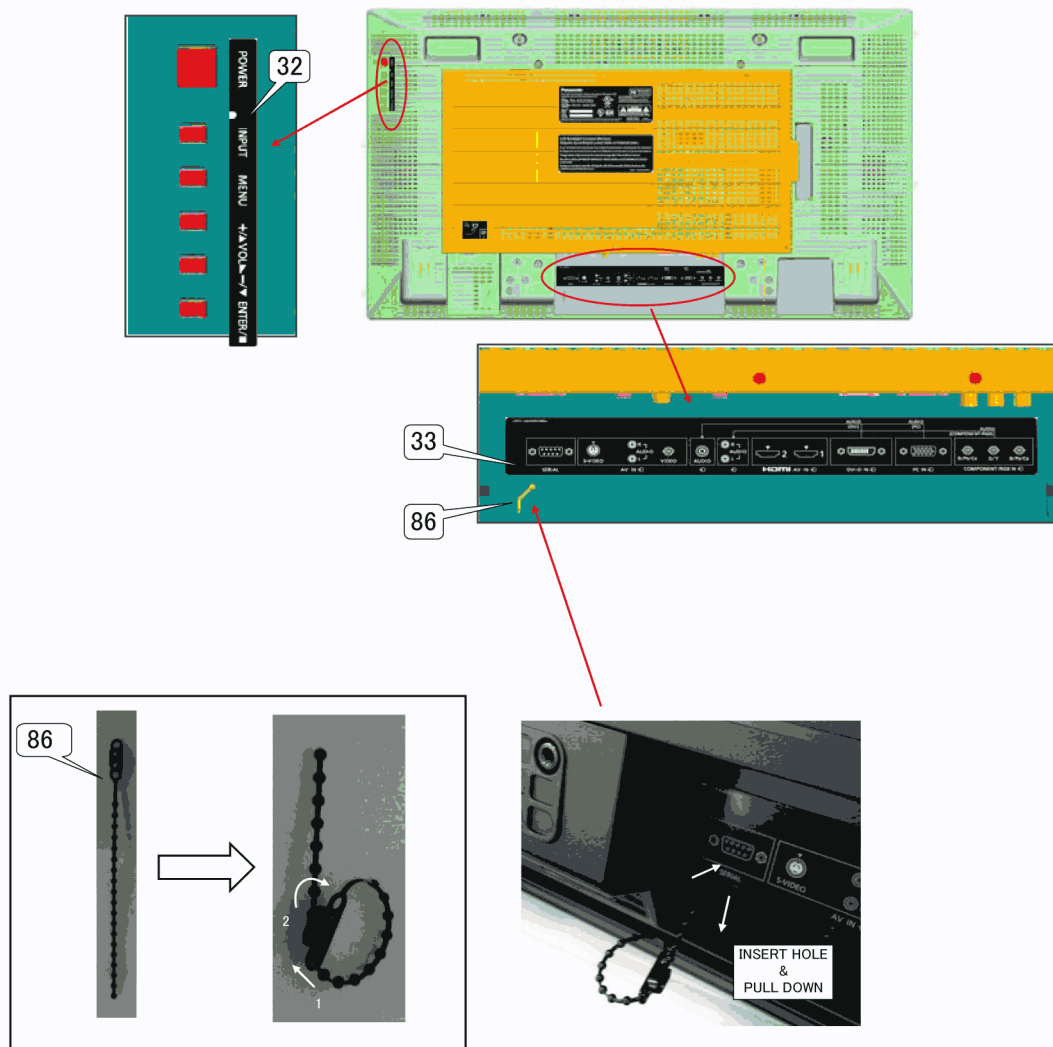
11.1.1.5. Screws for Cabinet back (47")



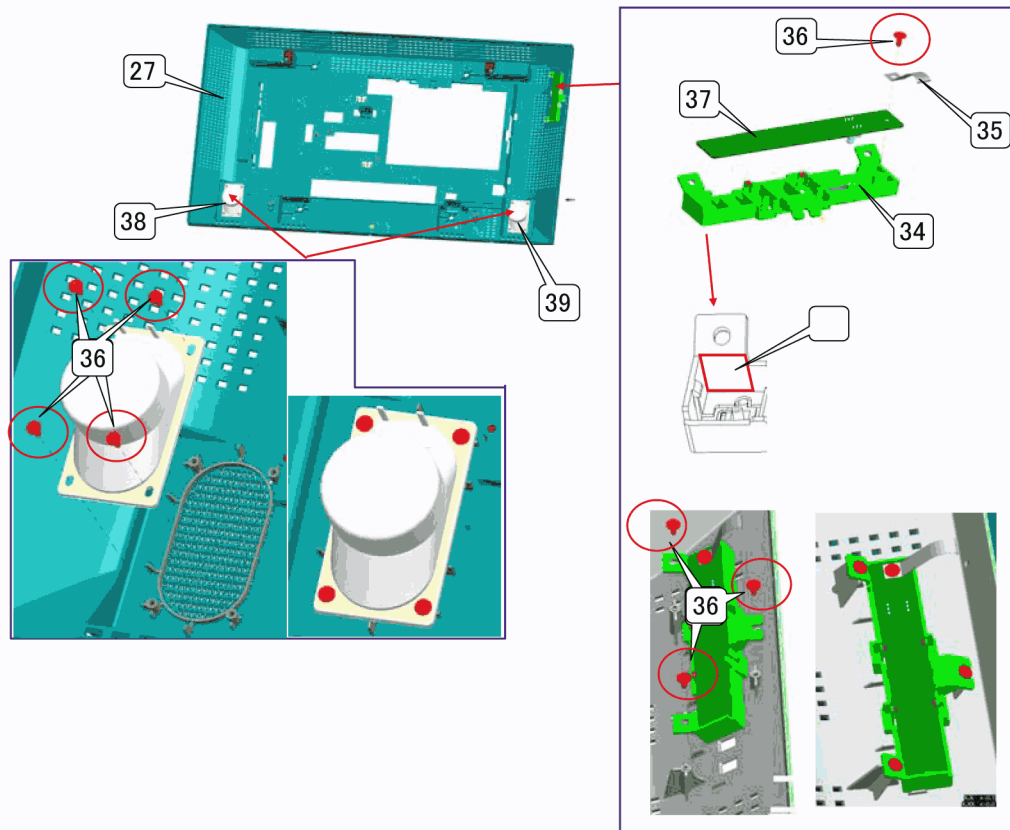
11.1.1.6. Cabinet back (42")



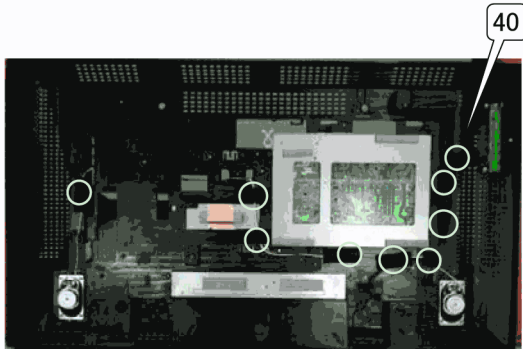
11.1.1.7. Cabinet back (47")



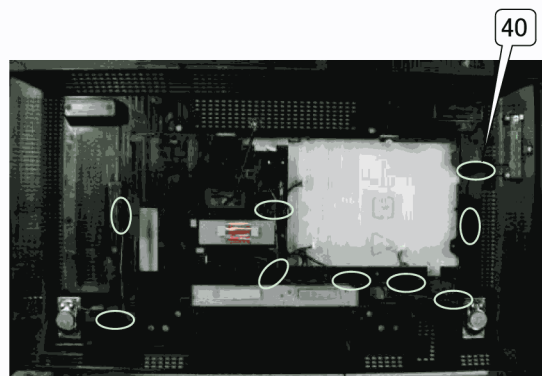
11.1.1.8. Inside of Cabinet back



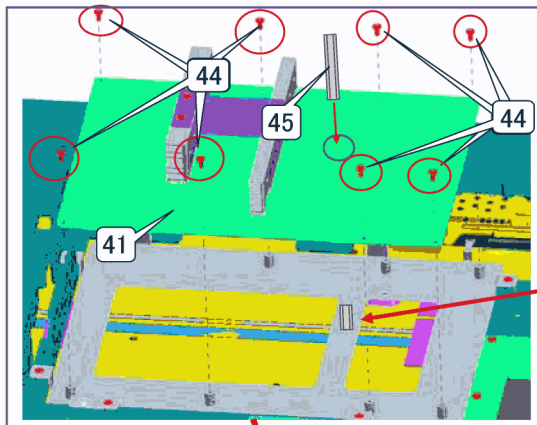
42"



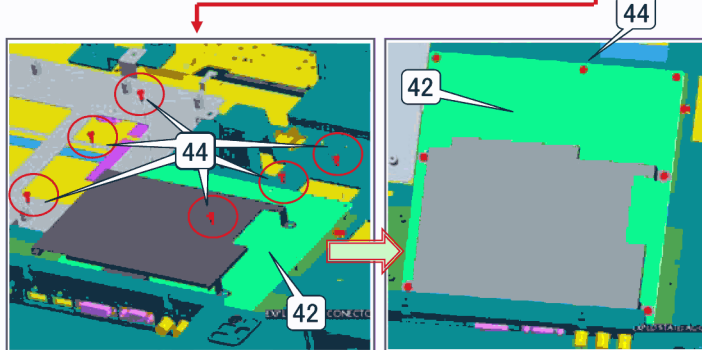
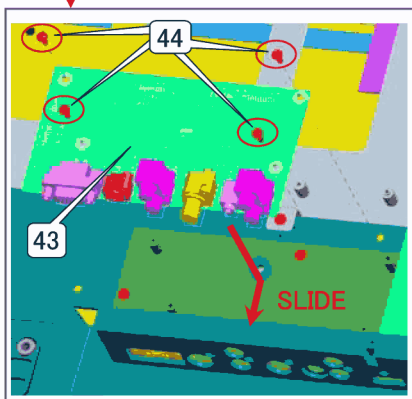
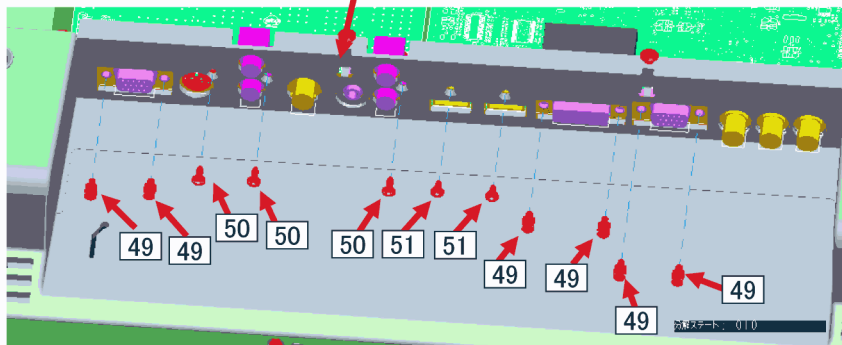
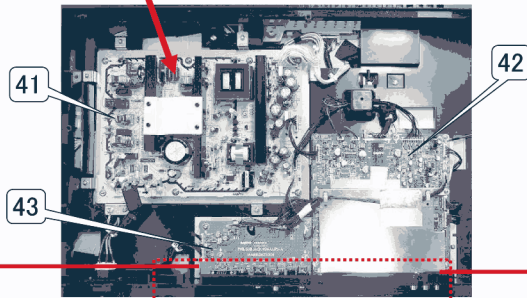
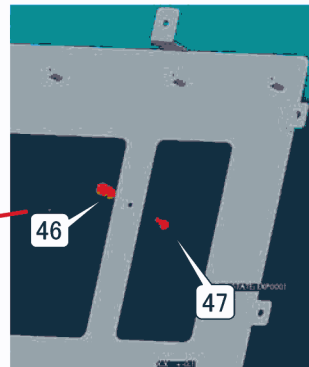
47"



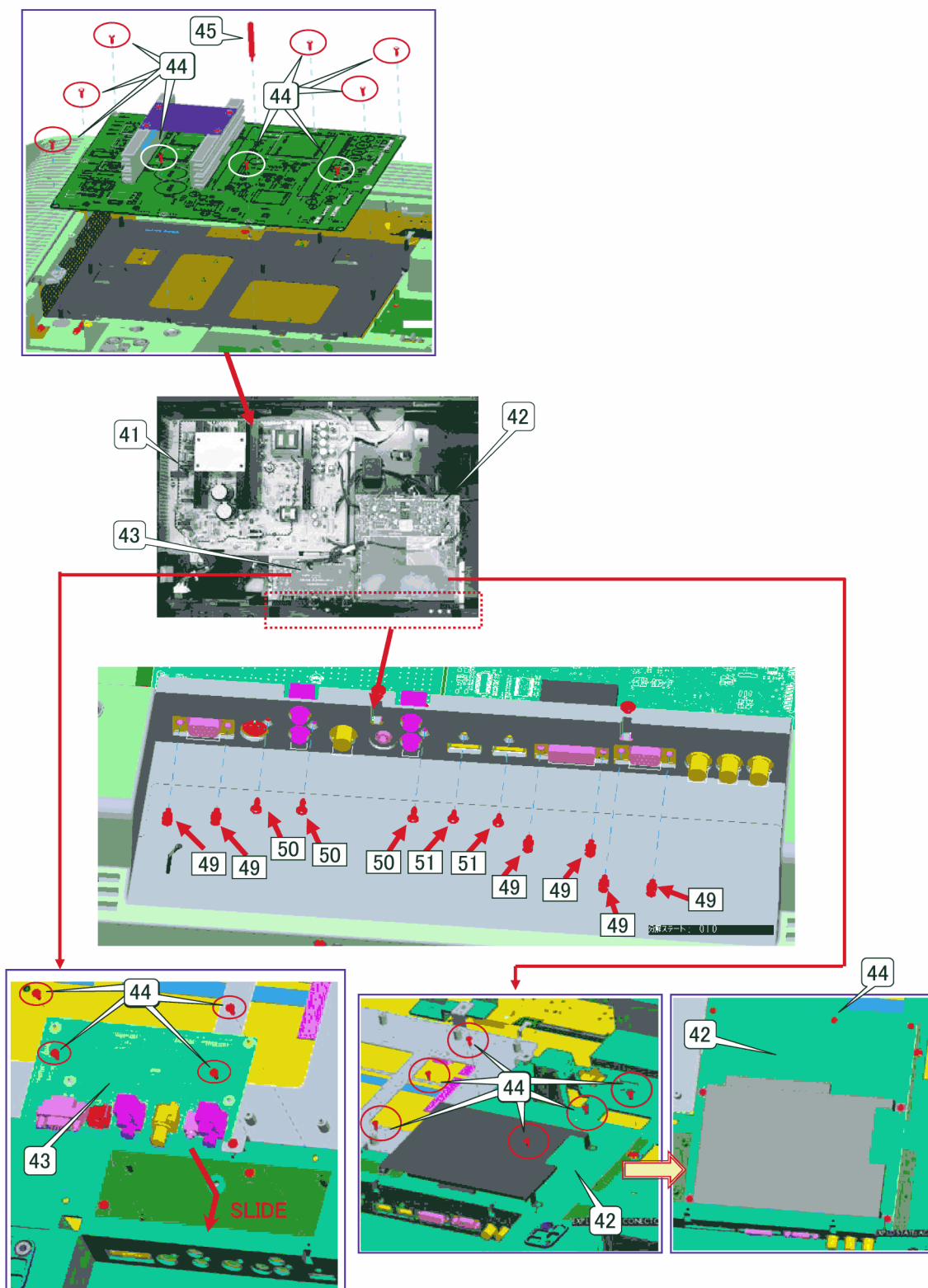
11.1.1.9. Screws for board (42")



(42" ONLY)

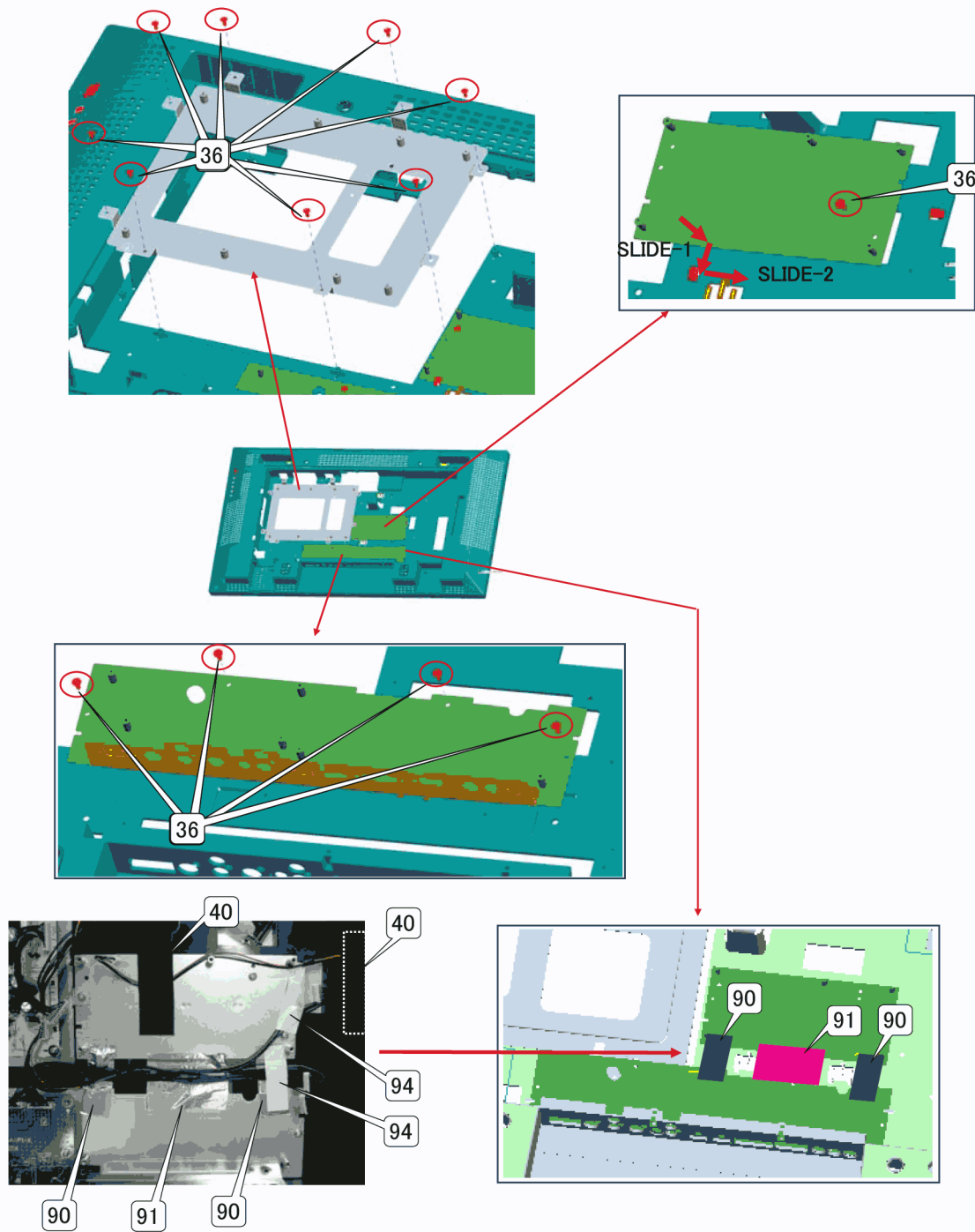


11.1.1.10. Screws for board (47")



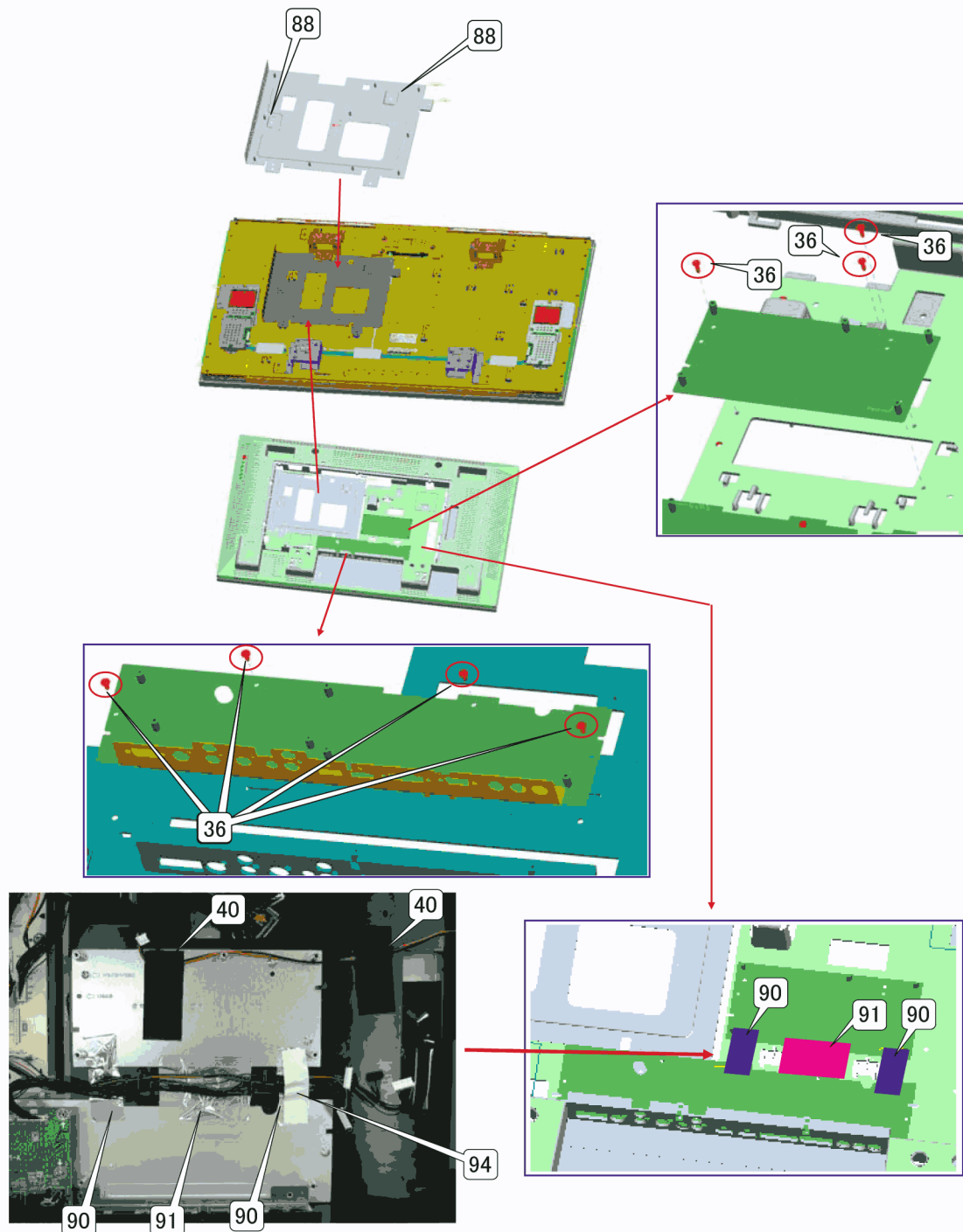
11.1.1.11. Screws for board holder (42")

Note : Board holders are not the repair parts.

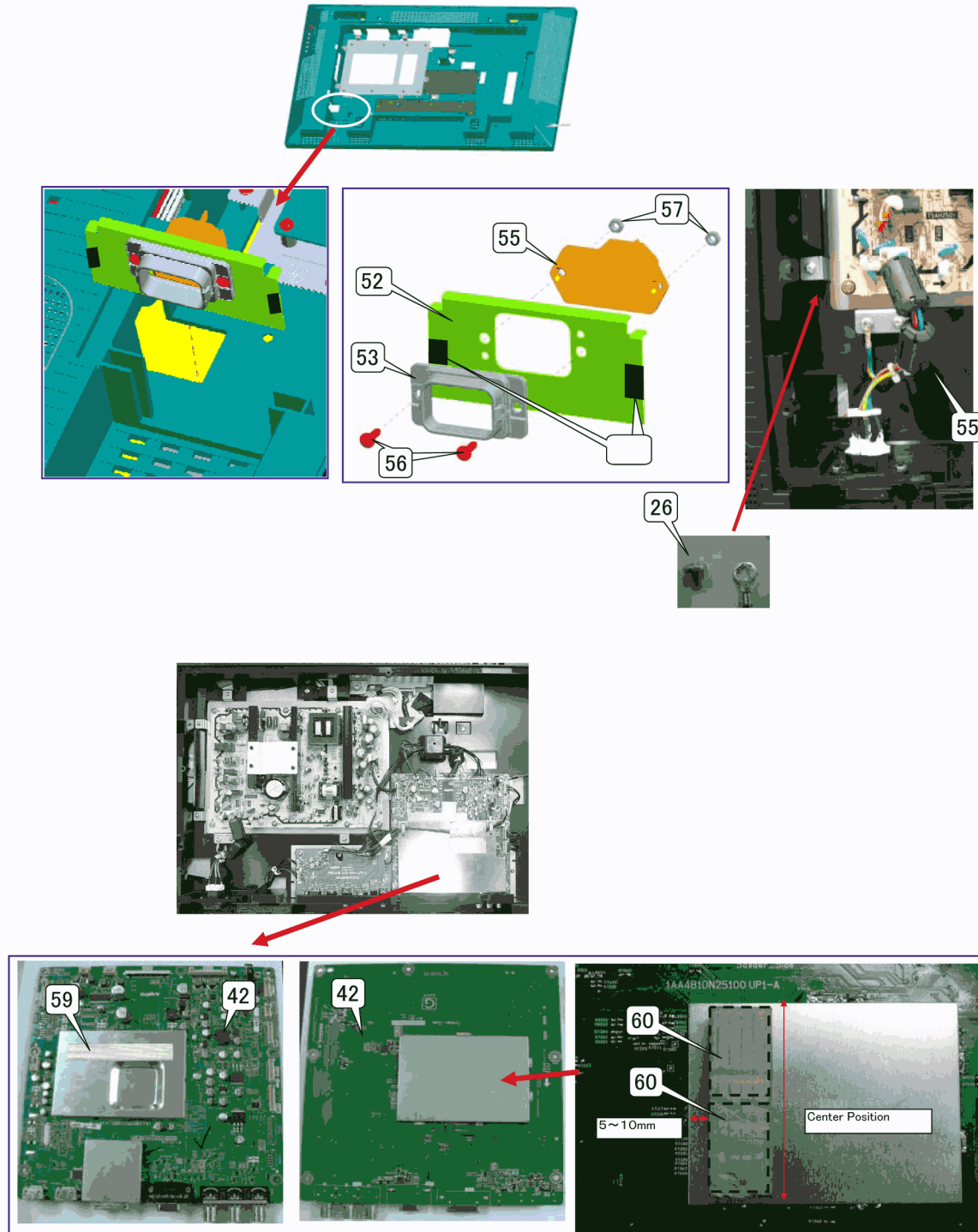


11.1.1.12. Screws for board holder (47")

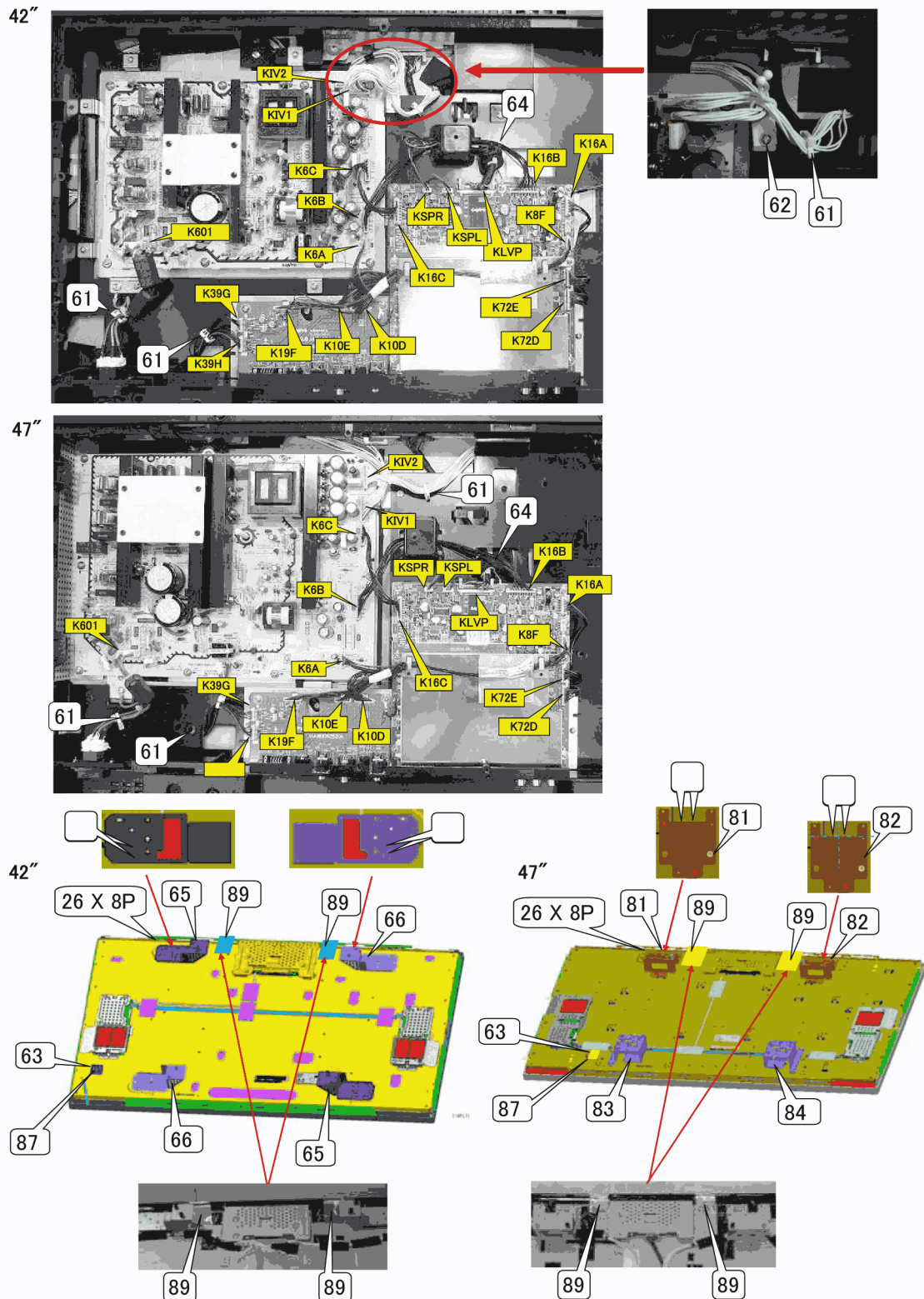
Note : Board holders are not the repair parts.



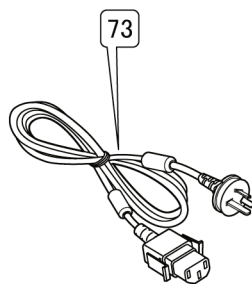
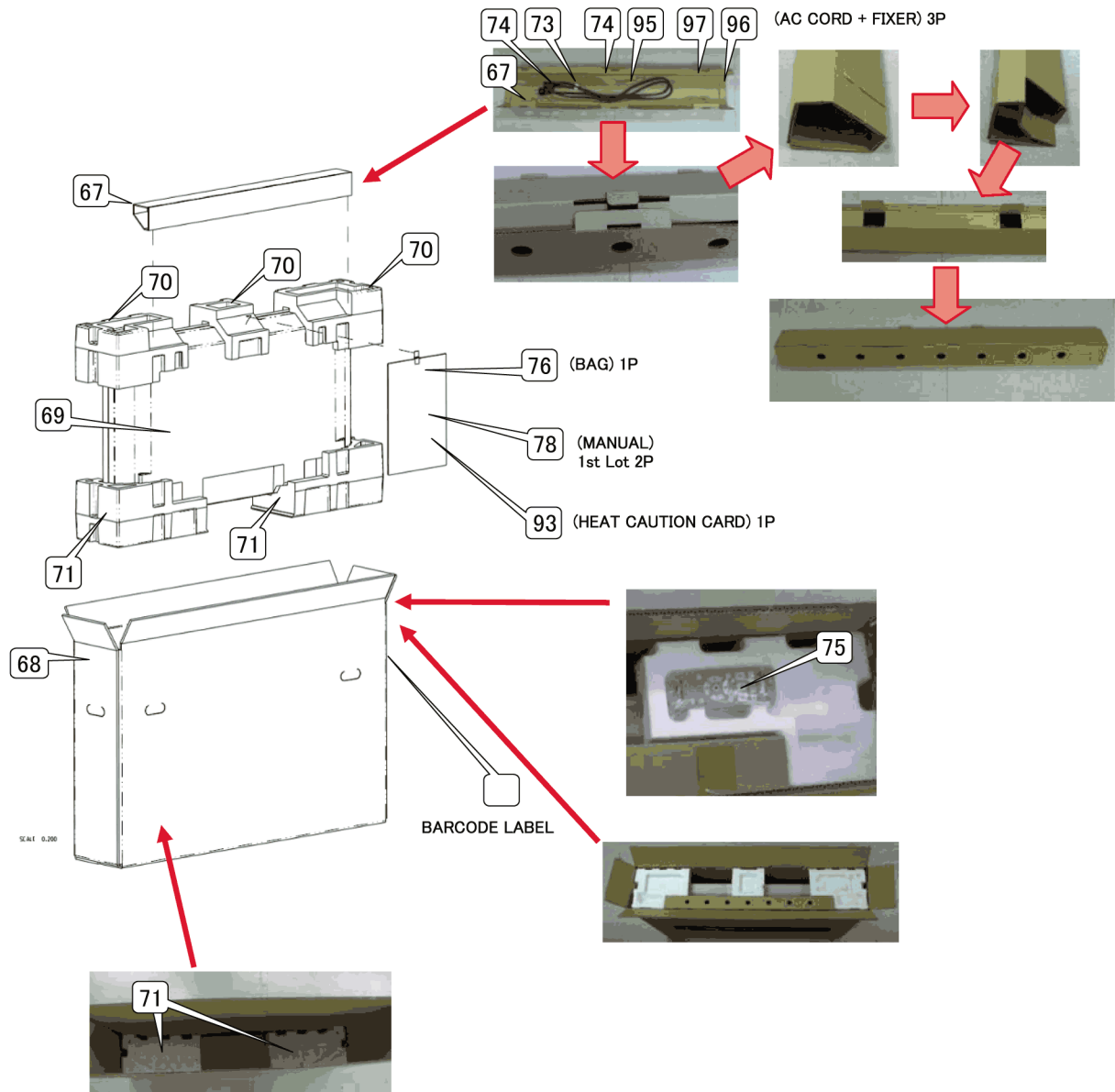
11.1.1.13. Gasket around the AC inlet and Main board



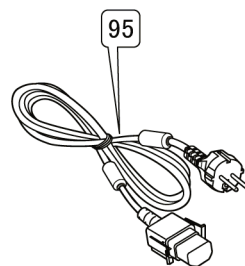
11.1.1.14. Wire, Panel mounting bracket



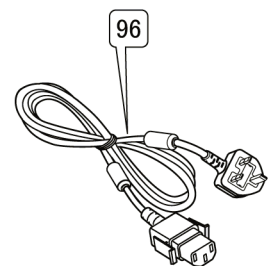
11.1.1.15. Packing, Accessories (42")



K2CK3YY00016
Oblique flat blade

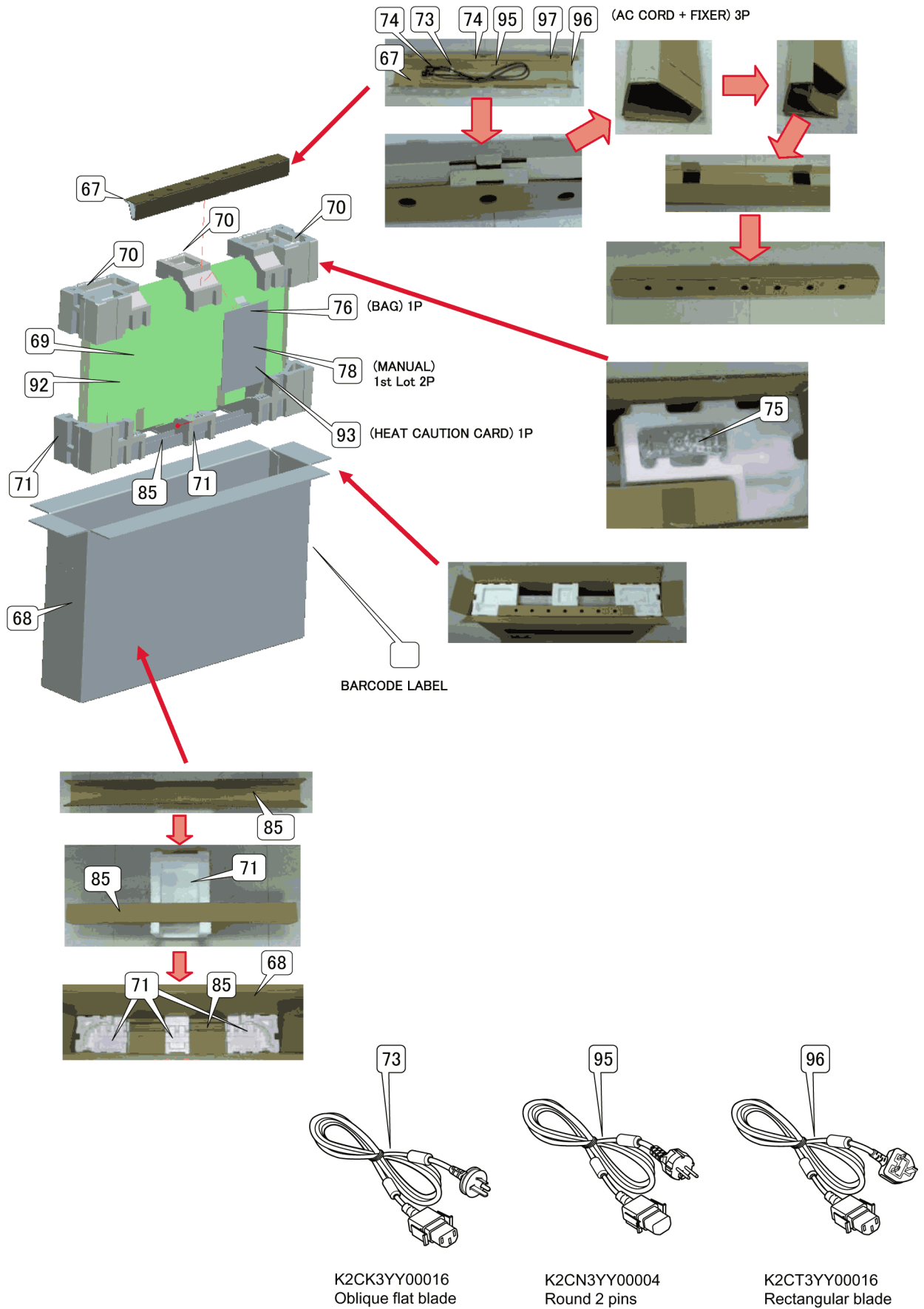


K2CN3YY00004
Round 2 pins



K2CT3YY00016
Rectangular blade

11.1.1.16. Packing, Accessories (47")



11.2. Mechanical Replacement Parts List (42 inch)

Note: All parts are supplied by PAVCKM.

Safety	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
△	1	T6103566948	CABINET FRONT ASSY	1	
	2	TBMA162	PANASONIC BADGE LOGO SHEET	1	
	4	T6103528212	SPACER SHEET	4	
	5	T6550038838	SPACER SHEET	4	
	6	T6103578989	ASSY,MTG CF & CB	4	
	7	T6103578996	ASSY,MTG CF & CB TOP	1	
	8	T6103579009	ASSY,MTG CF & CB BTM	1	
	13	T6103579016	ASSY,MOUNTING DEC	2	
	16	T6103579023	ASSY,SHIELD RC	1	
	17	T6103504179	DEC LED	1	
	19	T6451037602	FLEXIBLE FLAT CABLE	1	
△	20	T6103504148	LID BACK	1	
	21	T4112062406	SCREW TPG BRZ (4X10)	10	
	22	T6103566856	LABEL RATING	1	
	23	T6103511931	LABEL FOR WARNED	1	
	24	T6103504407	LABEL FOR AC CORD	1	
	25	T4112168603	SCREW FLT 4X12	23	
	26	T4111899003	SCREW BIN 4X6	13	
	27	T6103530932	CABINET BACK ASSY	1	
	32	T6103531052	DEC BUTTON ENGLISH	1	
	33	T6103504421	DEC AV ENGLISH	1	
	34	T6103579030	BUTTON UNIT ASSY	1	
	35	T6103450971	EARTH LVDS	1	
	36	T4111926402	SCR S-TPG BRZ+FLG 3.0X8.0 V	25	
	38	T6520036871	L-SPEAKER,8 SERVICE	1	
	39	T6520036888	R-SPEAKER,8 SERVICE	1	
	40	T6550022554	ADHESIVE CLOTH TAPE	16	
	44	T4110365509	SCREW PAN+SW+W 3X8	19	
	45	T6103505701	FIXER BOSS B	1	
	46	T6103505695	FIXER BOSS	1	
	47	T4110418403	SCREW PAN 3X6	1	
	49	T3120730406	SPECIAL SCREW	6	
	50	T4110759407	SCREW TPG BRZ 3X8	3	
	51	T4110418601	SCREW PAN 3X6	2	
	52	T6103579047	AC HOLDER ASSY	1	
	53	T6103505688	FIXER AC CORD A-1	1	
△	55	T6520033634	AC INLET-150MM SERVICE	1	
	56	T4112205902	SCREW BRZ 3X10	2	
	57	T4112206206	NUT HEX 3	2	
	59	T6103407241	GASKET AW	1	
	60	T6103341279	GASKET AW	2	
	61	T9550003837	FIXER HOOK	3	
	62	T9101305540	FIXER HOOK,D13 (PP)	1	
	64	T6520019041	CORE,CLAMP	1	

Safety	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
	65	T6103579054	ASSY,MOUNTING PANEL C	2	
	66	T6103579061	ASSY,MOUNTING PANEL D	2	
	67	T6103567211	CASE ACCESSORIES	1	
	68	T6103567242	CARTON CASE	1	
	69	T6103504537	BAG	1	
	70	T6103566801	CUSHION TOP	1	
	71	T6103566818	CUSHION BTM	1	
△	73	K2CK3YY00016	AC CORD(Oblique flat blade) - 2.0MK	1	
	74	TMMX169	FIXER AC CORD B-1	2	
	75	N2QAYB000535	REMOTE CONTROL	1	
	76	T6103528281	BAG MANUAL	1	
	78	T6103567617	INSTRUCTIONS MANUAL	1	
	78	T6103567624	INSTRUCTIONS MANUAL (ARABIC)	1	
	86	T6103519784	FIXER CABLE	1	
	87	T4111922503	SCREW PAN+SW 4X6	1	
	89	T6103531670	T-ALUMINUM	2	
	90	T6103533506	T-ALUMINUM A	2	
	91	T6103575193	HEAT CAUTION CARD	1	
	93	T6103534107	T-ALUMINUM C	1	
	94	T6103535043	T-EPOXY	2	
△	95	K2CN3YY00004	AC CORD(Round 2 pins) -2.0MK	1	
△	96	K2CT3YY00016	AC CORD(Rectangular blade)- 2.0MK	1	
	97	TMMX168-1	FIXER AC CORD B-2	1	
△		T6451051493	LCD ASSY FHD	1	
		T6520033184	CORD, 51P-51P (LVDS)	1	
		T6103556185	STANDARD WIRE (K39G-K19G)	1	
		T6103556208	STANDARD WIRE (K16A-K6A)	1	
		T6103556215	STANDARD WIRE ASSY-JPN (K38H-K39H)	1	
		T6103556246	STANDARD WIRE (K72E-K10E)	1	
		T6103556277	STANDARD WIRE ASSY-JPN (K16C-K6C)	1	
		T6103556307	STANDARD WIRE (K72D-K10D)	1	
		T6103556369	STANDARD WIRE ASSY-JPN (K16B-K6B)	1	

11.3. Mechanical Replacement Parts List (47 inch)

Note: All parts are supplied by PAVCKM.

Safety	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
⚠	1	T6103566955	CABINET FRONT ASSY	1	
	2	TBMA162	PANASONIC BADGE LOGO SHEET	1	
	4	T6103528212	SPACE SHEET	4	
	5	T6550038821	SPACER SHEET	2	
	6	T6103578989	ASSY,MTG CF & CB	4	
	7	T6103580005	ASSY,MTG C/F & C/B TOP	1	
	8	T6103580012	ASSY,MTG C/F & C/B BTM	1	
	13	T6103579016	ASSY,MOUNTING DEC	2	
	16	T6103579023	ASSY,SHIELD RC	1	
	17	T6103504179	DEC LED	1	
	19	T6451037602	FLEXIBLE FLAT CABLE	1	
⚠	20	T6103511887	LID BACK	1	
	21	T4112062406	SCREW TPG BRZ (4X10)	10	
	22	T6103566900	LABEL RATING	1	
	23	T6103511931	LABEL FOR WARNED	1	
	24	T6103504407	LABEL FOR AC CORD	1	
	25	T4112168603	SCREW FLT 4X12	26	
	26	T4111899003	SCREW BIN 4X6	11	
	27	T6103553122	CABINET BACK ASSY	1	
	32	T6103531052	DEC BUTTON	1	
	33	T6103504421	DEC AV ENGLISH	1	
	34	T6103579030	BUTTON UNIT ASSY	1	
	35	T6103450971	EARTH LVDS	1	
	36	T4111926402	SCR S-TPG BRZ+FLG 3.0X8.0 V	19	
	38	T6520036871	L-SPEAKER,8 SER-VICE	1	
	39	T6520036888	R-SPEAKER,8 SER-VICE	1	
	40	T6550022554	ADHESIVE CLOTH TAPE	25	
	44	T4110365509	SCREW PAN+SW+W 3X8	20	
	45	T6103505701	FIXER BOSS B	1	
	49	T3120730406	SPECIAL SCREW	6	
	50	T4110759407	SCREW TPG BRZ 3X8	3	
	51	T4110418601	SCREW PAN 3X6	2	
	52	T6103579047	AC HOLDER ASSY	1	
	53	T6103505688	FIXER AC CORD A-1	1	
⚠	55	T6520033412	AC INLET-150MM SERVICE	1	
	56	T4112205902	SCREW BRZ 3X10	2	
	57	T4112206206	NUT HEX 3	2	
	59	T6103407241	GASKET AW	1	
	60	T6103341279	GASKET AW	2	
	61	T9550003837	FIXER HOOK	3	
	64	T6520019041	CORE,CLAMP	1	
	67	T6103567211	CASE ACCESSORIES	1	
	68	T6103567280	CARTON CASE	1	
	69	T6103507200	BAG	1	
	70	T6103566825	CUSHION TOP	1	
	71	T6103566832	CUSHION BTM	1	

Safety	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
⚠	73	K2CK3YY00016	AC CORD (Oblique flat blade) - 2.0MK	1	
	74	TMMX169	FIXER AC CORD B-1-N9AB	2	
	75	N2QAYB000535	REMOTE CONTROL	1	
	76	T6103528281	BAG MANUAL	1	
	78	T6103567617	INSTRUCTIONS MANUAL	1	
	78	T6103567624	INSTRUCTIONS MANUAL (ARABIC)	1	
	80	T6550038838	SPACER SHEET	2	
	81	T6103580029	ASSY,MTG PANEL TOP L	1	
	82	T6103580036	ASSY,MTG PANEL TOP R	1	
	83	T6103552361	MTG PANEL BTM L A	1	
	84	T6103552378	MTG PANEL BTM R A	1	
	85	T6103567310	SPACER CUSHION BTM	1	
	86	T6103519784	FIXER CABLE	1	
	87	T4111922503	SCREW PAN+SW 4X6	1	
	88	T4111898907	SCREW BIN 4X4	2	
	89	T6103531670	T-ALUMINUM	2	
	90	T6103533506	T-ALUMINUM A	2	
	91	T6103575193	HEAT CAUTION CARD	1	
	92	T6103537528	POLY SHEET 1700X1300 NC	1	
	93	T6103534107	T-ALUMINUM C	1	
	94	T6103535043	T-EPOXY	1	
	95	K2CN3YY00004	AC CORD (Round pins) -2.0MK	1	
	96	K2CT3YY00016	AC CORD (Rectangular blade) - 2.0MK	1	
	97	TMMX168-1	FIXER AC CORD B-2-N9AC	1	
⚠		T6451051509	LCD ASSY FHD	1	
		T6103556192	STANDARD WIRE (K39G-K19G)	1	
		T6103556208	STANDARD WIRE (K16A-K6A)	1	
		T6103556215	STANDARD WIRE ASSY-JPN (K38H-K39H)	1	
		T6103556246	STANDARD WIRE (K72E-K10E)	1	
		T6103556277	STANDARD WIRE ASSY-JPN (K16C-K6C)	1	
		T6103556307	STANDARD WIRE (K72D-K10D)	1	
		T6103556369	STANDARD WIRE ASSY-JPN (K16B-K6B)	1	
		T6520033184	CORD, 51P-51P (LVDS)	1	

11.4. Electrical Replacement Boards list (42 inch)

Note: All boards are Non serviceable.

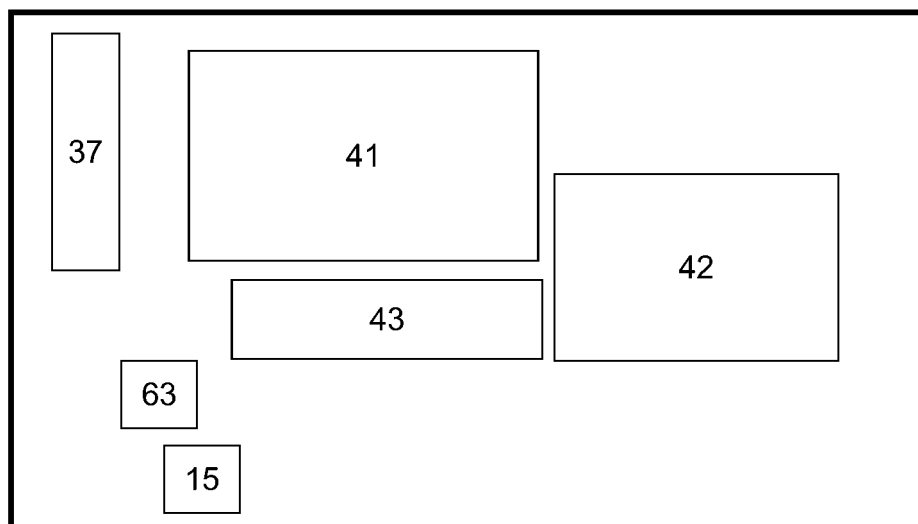
Safety	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
⚠	15	T6103500829	CIRCUIT BOARD RC+LED	1	
⚠	37	T6103500836	CIRCUIT BOARD KEY SW	1	
⚠	41	T6103565026	CIRCUIT BOARD POWER	1	
⚠	42	T6103568188	CIRCUIT BOARD MAIN	1	
⚠	43	T6103500812	CIRCUIT BOARD JACK	1	
⚠	63	T6103516394	CIRCUIT BOARD CONNECTOR	1	

11.5. Electrical Replacement Boards list (47 inch)

Note: All boards are Non serviceable.

Safety	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
⚠	15	T6103500829	CIRCUIT BOARD RC+LED	1	
⚠	37	T6103500836	CIRCUIT BOARD KEY SW	1	
⚠	41	T6103565033	CIRCUIT BOARD POWER	1	
⚠	42	T6103565002	CIRCUIT BOARD MAIN	1	
⚠	43	T6103500812	CIRCUIT BOARD JACK	1	
⚠	63	T6103516394	CIRCUIT BOARD CONNECTOR	1	

11.6. Boards Layout



Ref.No.	Board Name	Function	Remarks
15	RC+LED	Remote Receiver, LED	All boards are Non serviceable.
37	KEY SW	Control Button	
41	POWER	Power (AC/DC), DC-DC Non serviceable P-Board should be exchanged for service.	
42	MAIN	Main, Audio & Video Signal Processor, HDMI in, PC in	
43	JACK	AV Terminal	
63	CONNECTOR	Connection board for RC+LED	